

SERVICE EQUIPMENT CO.  
Contractors and Builders Equipment  
211 N. 3rd St., PHILA., PA.

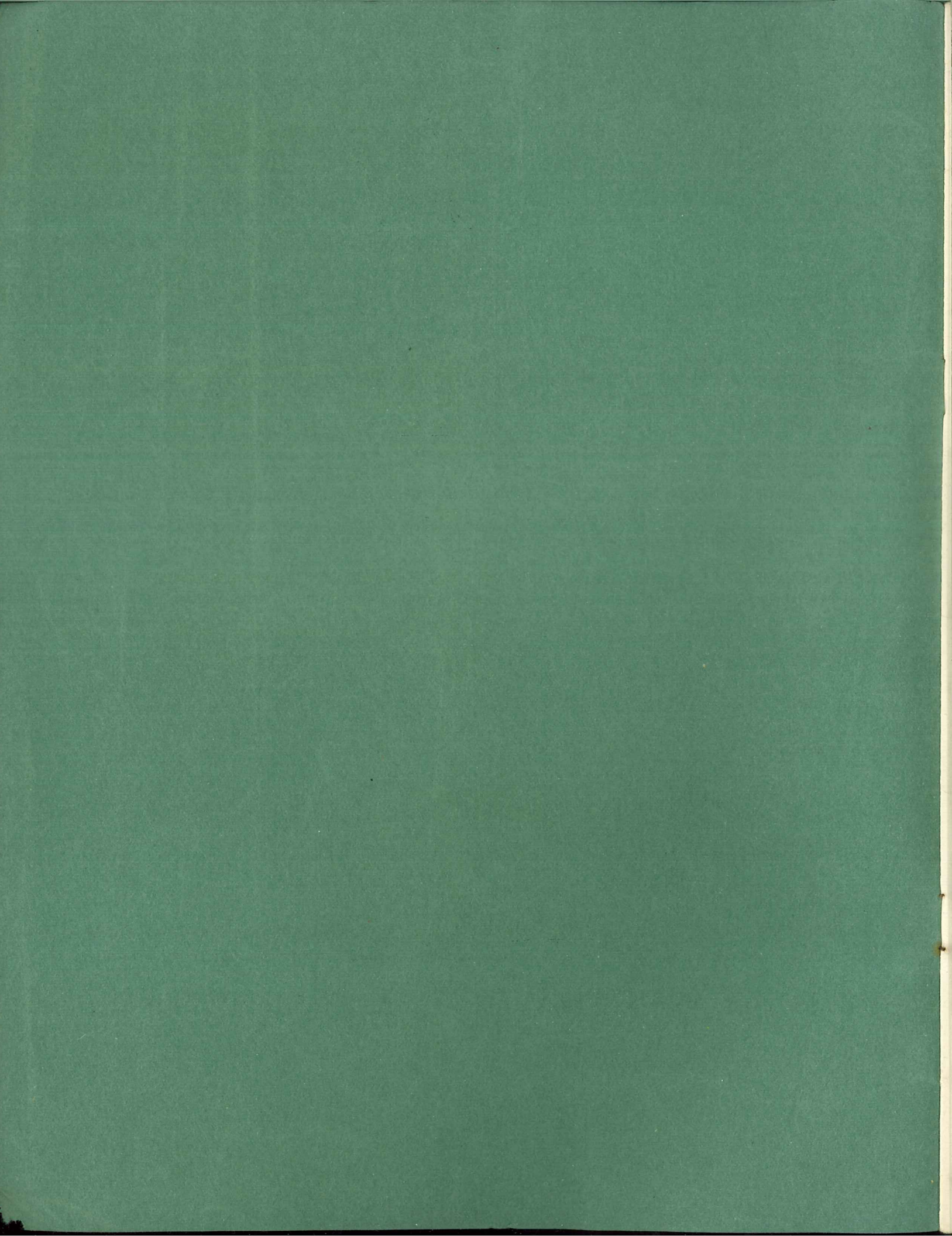
*time, labor  
and money  
saving*

*Hoist  
Tower  
Outfits*

Archer









# Archer

## Concrete Hoisting and Distributing Systems

EVERY feature of design and workmanship which increases speed, ease and accuracy of operation—which lengthens wear—and which reduces repair expense is embodied in this Archer line of Hoist Tower Outfits, Spouting Equipment and Mortar Mixers.

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Catalog Number 1026

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## Archer Iron Works

Established 1891

34th Place & Western Ave.

Chicago, Ill.





# THE ARCHER IRON WORKS

## Archer Steel Tower Hoists *Built in Three Sizes*

LB60T

### NO. 700 STEEL TOWER OUTFIT

Bucket Capacity of 9 Cu. Ft. of Mixed Concrete

### NO. 1400 STEEL TOWER OUTFIT

Bucket Capacity of 18.4 Cu. Ft. of Mixed Concrete

### NO. 2100 STEEL TOWER OUTFIT

Bucket Capacity of 25 Cu. Ft. of Mixed Concrete

ARCHER STEEL TOWER HOISTS consist of two sizes of Steel Mast Sections. One, 19½" x 15" outside dimensions, known as our Light Duty Section, is used with our No. 700 Steel Tower Outfit. The other section measuring 25" x 21" outside dimensions, known as our Heavy Duty Section, is used with our No. 1400 and No. 2100 Steel Tower Outfits, and this Mast Section is more than twice as strong as our Light Duty Section.

OUR LIGHT DUTY SECTION used with the No. 700 Tower Outfit is recommended for Towers not to exceed 160 ft. high, guy supported.

OUR HEAVY DUTY SECTION used with our No. 1400 and No. 2100 Tower Outfits is recommended for Towers 240 ft. high, guy supported. Both Towers can be furnished to any height if they are fastened to a building or to the skeleton work of a steel fabricated building.

## Simple and Safe in Operation

ARCHER STEEL TOWERS fill a demand among Building and Bridge Contractors who desire to obtain equipment for placing concrete which is exceptionally strong, rigid, and economical. They are easily erected or dismantled and moved from one project to another.

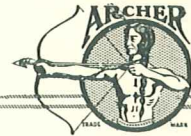
Illustration Shows Bucket Partially Elevated Just Before It Reaches the Receiving Hopper

Archer equipment is light but exceptionally strong, easy to erect to a maximum height and easy to dismantle and move from job to job.

## Mast Sections

MAST SECTIONS are made in 20 ft. lengths, are interchangeable and made to templet. Two sizes of sections are furnished. One, our Light Duty Section measuring 19½" x 15" in cross section and used with our No. 700 Tower Outfit, and the other, our Heavy Duty Section measuring 25" x 21" in cross section and used with our No. 1400 and No. 2100 Outfits.





HB60T

## Cross Arm Brackets

Cross Arm Brackets of heavy I-beam construction are furnished for bolting to the mast at 40 ft. intervals.

## Perfect Control Buckets

Steel Tower Buckets are made in three sizes with water level capacity of 9, 18.4, and 25 cu. ft.. Buckets are heavily constructed, made *water tight*, and provided with a bail which travels up and down one face of the Mast and so arranged that if the bucket is raised too high it will pass on beyond the hopper emptying its contents into the Hopper and when lowered will automatically right itself and come down the Tower in an upright position. This is an exclusive Archer Feature and one which commends itself to the contracting trade which welcomes improvements designed for the safety of the operators and users of their equipment.

## Improved Safety Hopper

Each Tower Outfit is equipped with a Hopper which carries dumping guides so that no matter where the Hopper is located on the Mast the Bucket will empty its contents into it. Hoppers are provided with a Gate at the bottom to regulate the flow of concrete into the Chutes. Each Hopper is equipped with a Splash Plate which prevents any splashing of concrete when the bucket dumps into it. Where concrete is to be taken direct from the Hopper with buggies, the Hopper is so arranged as to discharge direct into the buggies. Where the Hopper is used with a Boom Spout it is mounted on a sliding frame so as to move up or down the Tower in conjunction with the boom spout.

## Bucket Cat Head

Bucket Cat Head consists of two 18" diameter sheaves running on Hyatt Roller Bearings and furnished with Nikrome steel shafts heat treated. This type of construction requires OILING only once a week. Cat Head is bolted to top of mast.

## Bottom Swivel Sheave

Bottom Swivel Sheave consists of one 18" diameter sheave mounted in heavy steel swivel bracket and provided with large grease cups conveniently arranged for oiling.

Illustration Shows Bucket Emptying Into Receiving Hopper. Only Takes Five Seconds to Dump Entire Contents of Bucket.

Rapidity and ease in handling concrete has made Archer Steel Tower Hoists and equipment popular with contractors.





# THE ARCHER IRON WORKS

## Boom Chute Plants

**B**OOM Chute Plants are used wherever concrete is to be carried by gravity through chutes and inasmuch as this method of handling concrete shows the greatest economy, these plants are in great demand and exceed in number the plants where buggies are used to wheel concrete.

Boom Chutes are made in 30 and 40 ft. lengths. The 30 ft. lengths are used in connection with the Light Duty Tower and two of these spouts can be supported from the Mast. The first section is held back to the Mast by means of direct cable connection to a small slide up frame which is connected with the Hopper slide up frame and so arranged that the Tower Hopper, cable slide up and first section of boom spout are raised as one unit. The Hopper end of the second section of spouting is hung from the end of the first section and the discharge end is held to the top of the Mast by an auxiliary slide up frame. By means of this auxiliary slide up frame the second section of chute can be raised or lowered at will. If additional sections of spouting are used a La Verne Winch is used on the end of the second spout to support the Hopper end of the third spout, making the first support for spout at the end of the third section from the Mast.

Our Heavy Duty Tower is designed for use with 40 ft. trussed spouts and three of these spouts may be hung off from the Mast in the manner above described before the first support is required at the end of the third spout.

## Material Elevator

**T**HE greatest development in equipment for hoisting and spouting concrete is the combination of a Material Elevator in connection with a Mast for hoisting and spouting concrete. Not only is the Archer Material Elevator brought to a high state of efficiency by the use of Hyatt and Timken Roller Bearings, Nikrome Steel Shafts and machined rollers, but we have gone far ahead of other manufacturers in arranging our Material Elevator so as to be used in the erection of the Steel Tower itself.

Our Elevator, which has a capacity of Three Wheel Barrows, is furnished complete with a wood platform 8 feet long by 6 feet wide. It is also equipped with Hoisting Winch, complete with steel blocks and cable, arranged so that one man can easily raise a Mast section. Gin Pole for erecting the Tower is attached to the platform and in erecting the Tower the section of the Mast to be attached to a preceding section is placed on the Material Platform by means of the hand Winch furnished and the material platform raised by hoisting engineer with gin pole and Mast section to a point about 9 feet below the top of the existing section. The new section of Mast is then raised by the Winch and put into place on the existing section. This method of erection not only cuts down the time of erection one-half over the old hazardous method of climbing the Mast but provides a safe working platform for the workmen which commends itself to the contracting field who are always ready to recognize any new invention looking toward safety of its men.

Illustration Shows Method of Erecting Tower by Means of Material Elevator



# THE ARCHER IRON WORKS



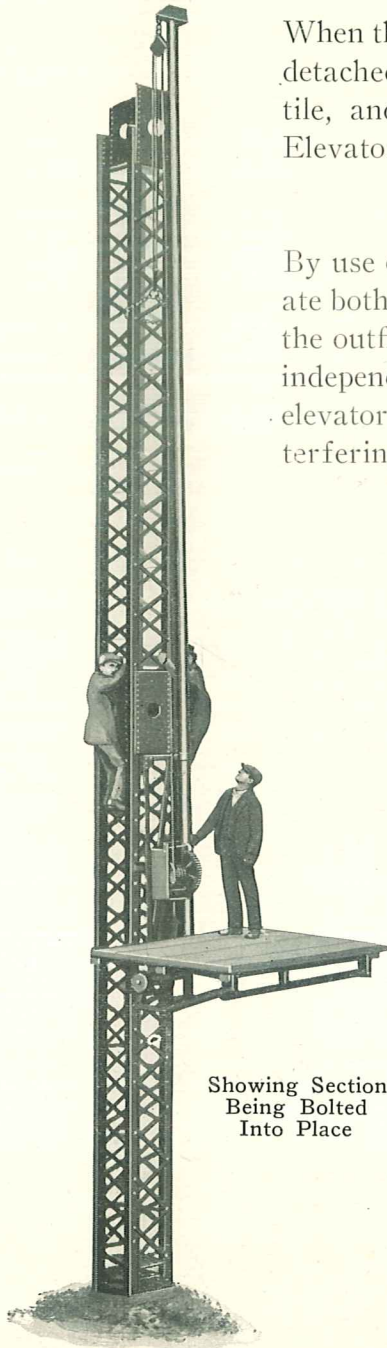
WITH the Archer Material Elevator is furnished a locking device which automatically dogs the Elevator when the new section is being raised. With each Elevator there is included an elevator sheave which slides up one face of the mast. There is also furnished with the elevator an 18 in. bottom swivel sheave to take the elevator hoist line to the hoisting engine.

When the Tower is erected the Gin Pole can be quickly detached and the elevator used to raise brick, mortar, tile, and other equipment required in the building. Elevator is designed for a working load of 2,000 lbs.

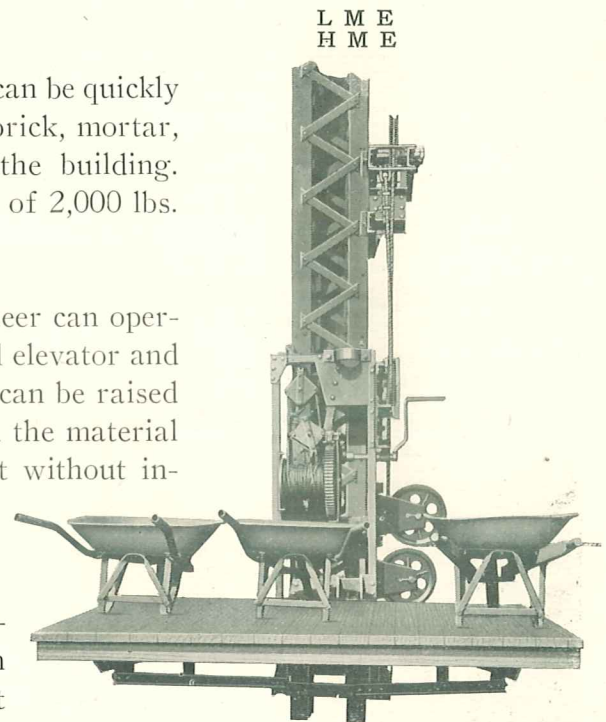
By use of a double drum hoist one engineer can operate both the hoist bucket and the material elevator and the outfit is so arranged that the bucket can be raised independent of the material elevator and the material elevator independent of the hoist bucket without interfering with one another.

The use of the Platform elevator in connection with an Archer Steel Tower Hoist eliminates the old style separate wood tower for hoisting concrete and also the double cage wood tower for hoisting materials, both towers taking separate hoists and separate hoisting engines.

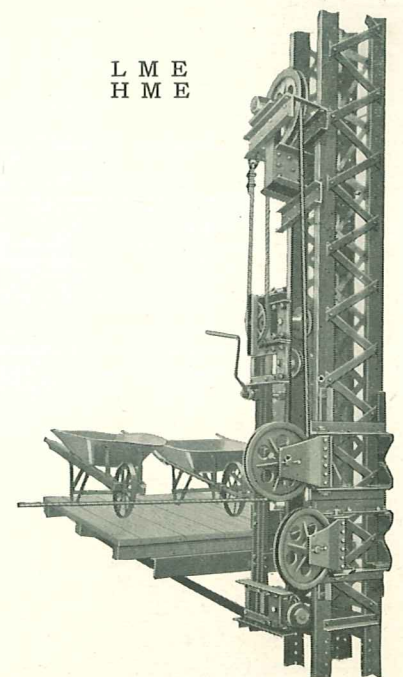
The use of this Platform entirely eliminates the necessity of building a separate double cage elevator. By the use of a double drum hoist one hoisting engineer can operate both the concrete bucket and the material platform.



Showing Section  
Being Bolted  
Into Place



Elevator With 3 Wheelbarrows; Gin Pole Removed

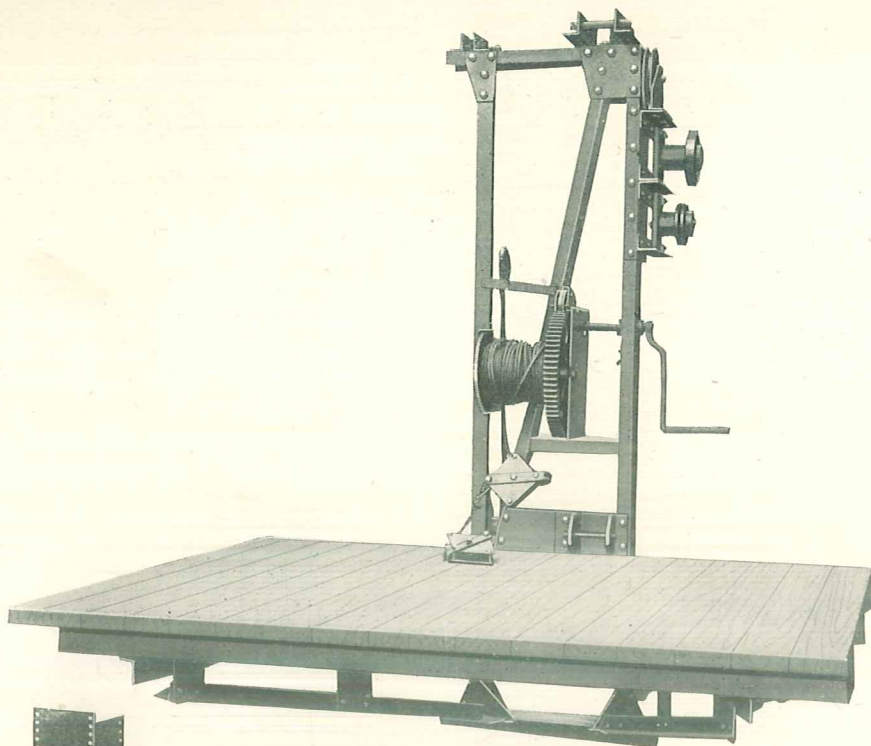


Elevator Without Gin Pole



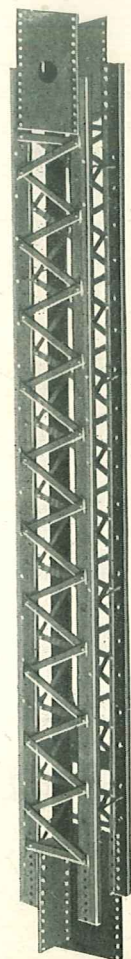


# THE ARCHER IRON WORKS

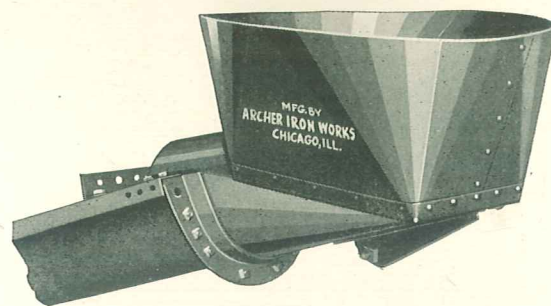


Material Elevator complete with hoisting winch, blocks, and cable—gin pole removed.

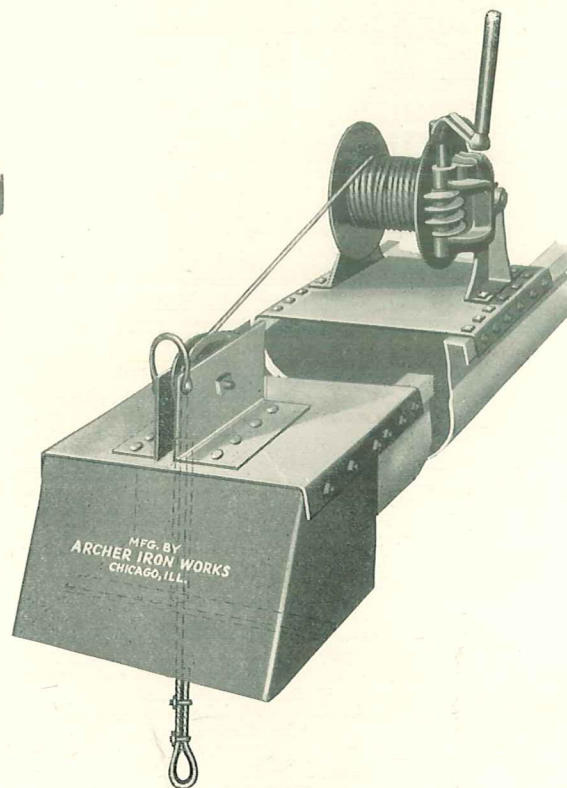
LME—For Light Duty Tower.  
HME—For Heavy Duty Tower.



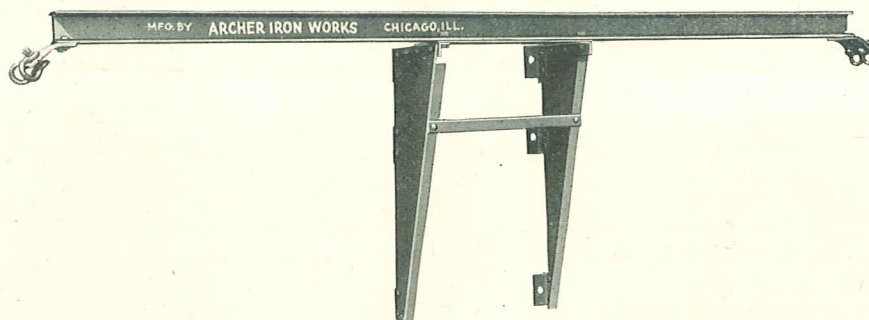
Standard Tower Section.  
No. L20T. For Light Duty Tower.  
No. H20T. For Heavy Duty Tower.



No. 60. Special swivel hopper for use on boom spout plants.



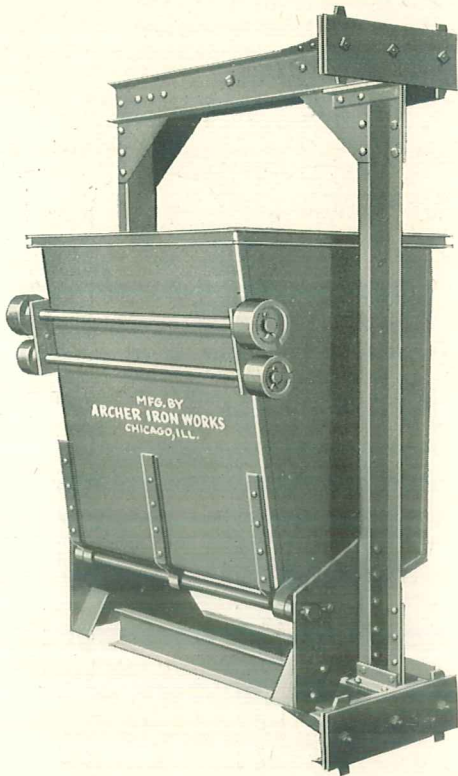
No. 59. LaVerne Winch used on the end of any standard spout section for raising and holding the hopper end of an additional length of spouting.



Standard Cross Arm.  
No. 63. For Light Duty Tower.  
No. 64. For Heavy Duty Tower.

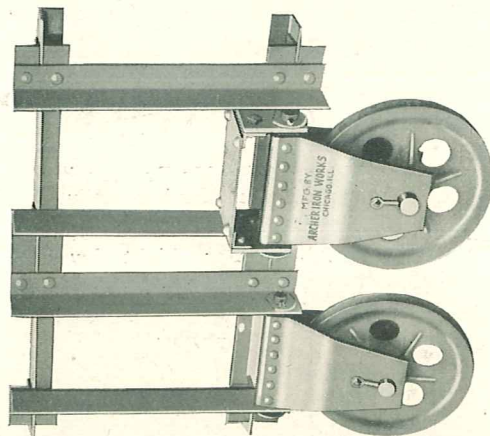


# THE ARCHER IRON WORKS



Hoist Bucket complete and ready for attaching to the tower.

- No. 41. Bucket capacity of 9 cu. ft. of mixed concrete.
- No. 42. Bucket capacity of 18.4 cu. ft. of mixed concrete.
- No. 43. Bucket capacity of 25 cu. ft. of mixed concrete.



Double Bottom Swivel Sheave. One sheave for the bucket line and one sheave for the material elevator line.

- No. 46. For Light Duty Tower.
- No. 47. For Heavy Duty Tower.

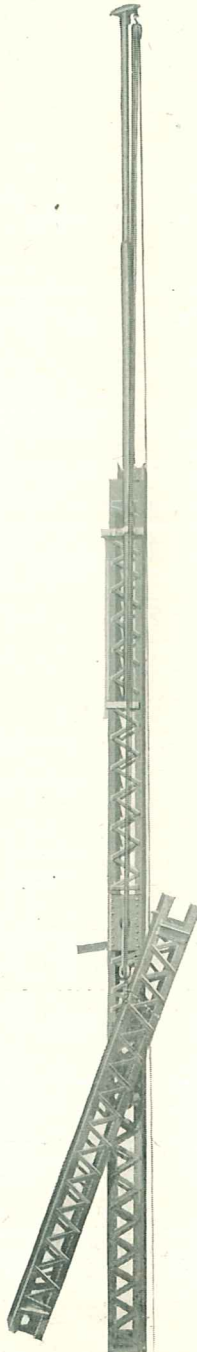
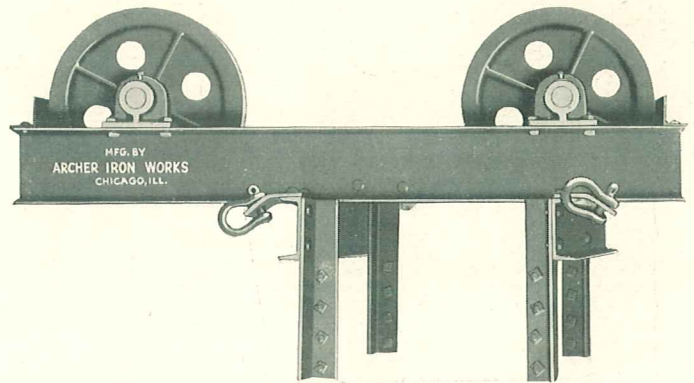
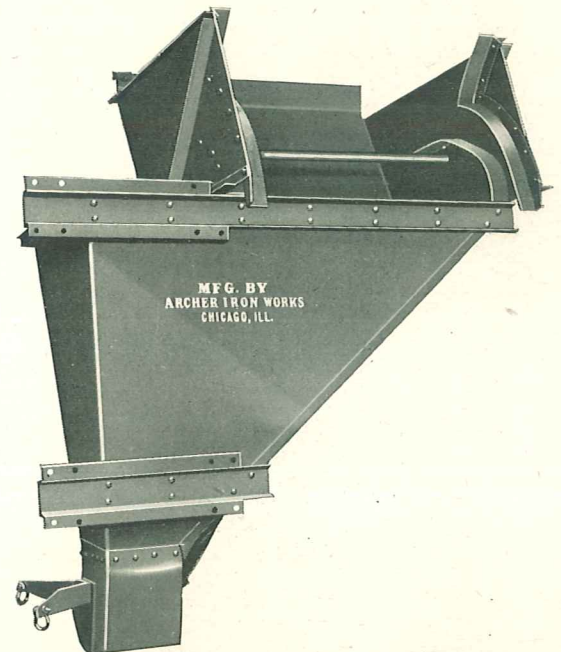


Illustration shows how Tower is erected with gin pole—no material elevator used.



Top Cat-Head for carrying the hoist cable of the concrete bucket.

- No. 44. For Light Duty Tower.
- No. 45. For Heavy Duty Tower.



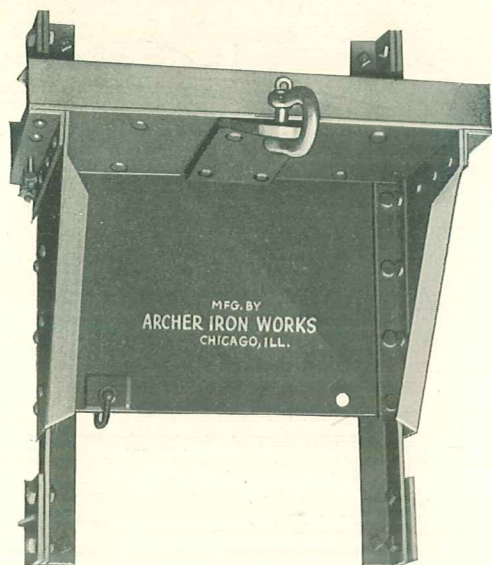
Tower Hopper complete with throwout guides and splash plate.

- No. 48.  $\frac{3}{4}$  yard capacity for Light Duty Tower.
- No. 49. 1 yard capacity for Heavy Duty Tower.





# THE ARCHER IRON WORKS



Top Cable Slide Up Frame.

No. 50. For Light Duty Tower.

No. 51. For Heavy Duty Tower.

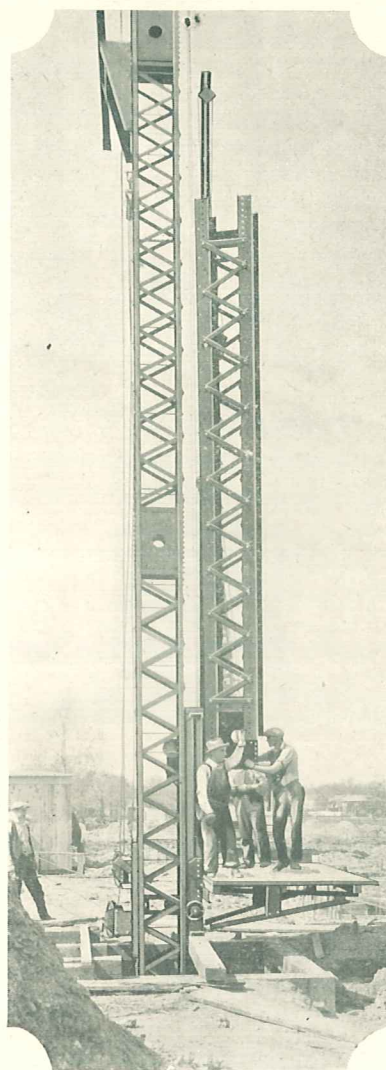
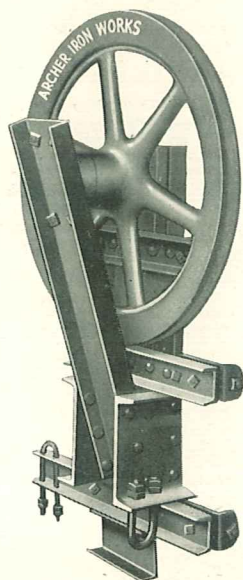


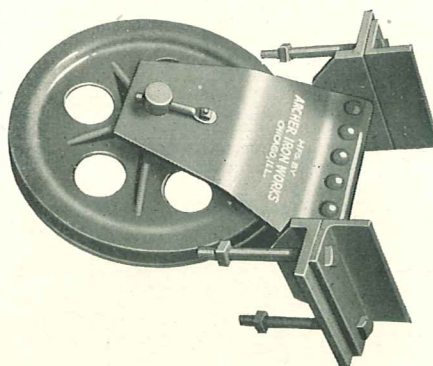
Illustration shows modern method of erection with use of material elevator.



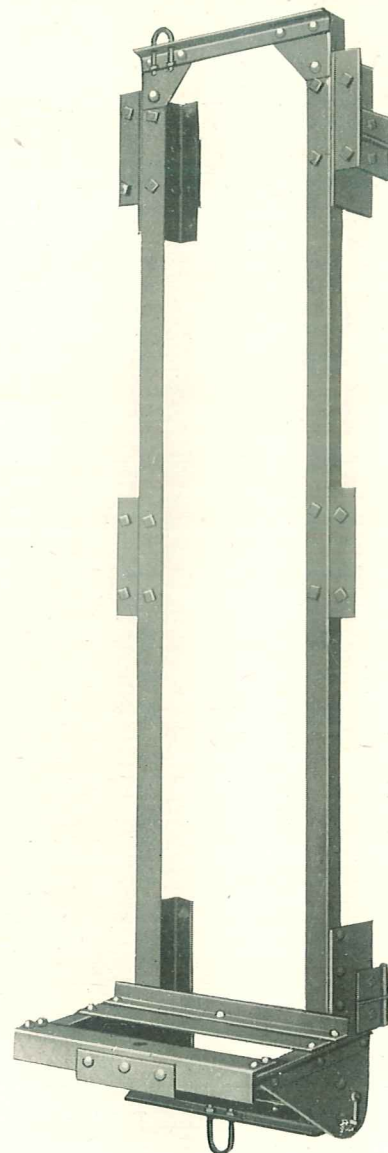
Material Elevator Slide Up Cat-Head.

No. 55. For Light Duty Tower.

No. 56. For Heavy Duty Tower.



No. 52. Bottom Swivel Sheave used when material elevator is not furnished.



Hopper Slide Up Frame with boom support for boom chute plants.

No. 53. For Light Duty Tower.

No. 54. For Heavy Duty Tower.



# THE ARCHER IRON WORKS

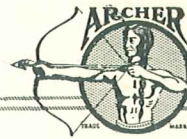
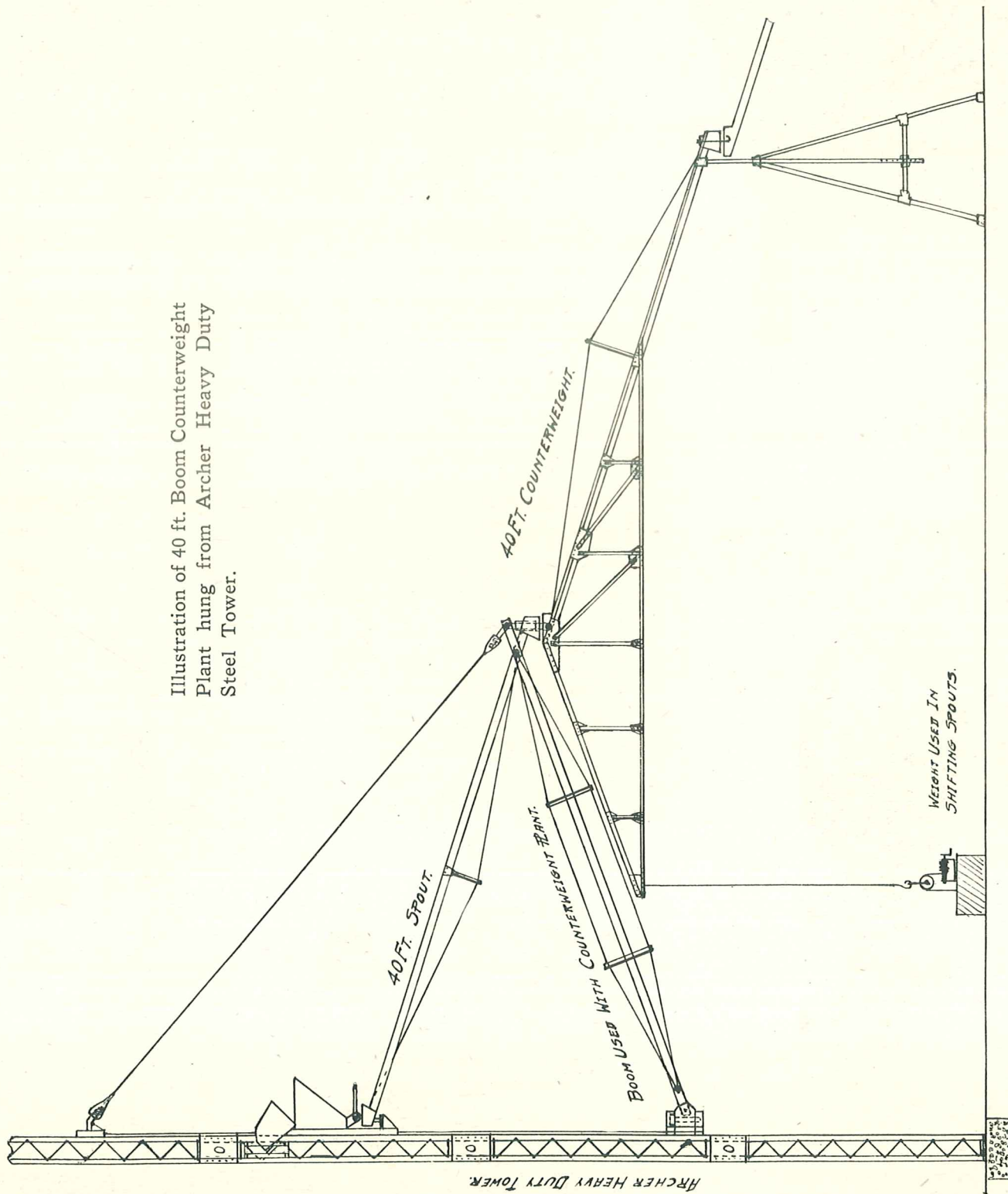


Illustration of 40 ft. Boom Counterweight  
Plant hung from Archer Heavy Duty  
Steel Tower.

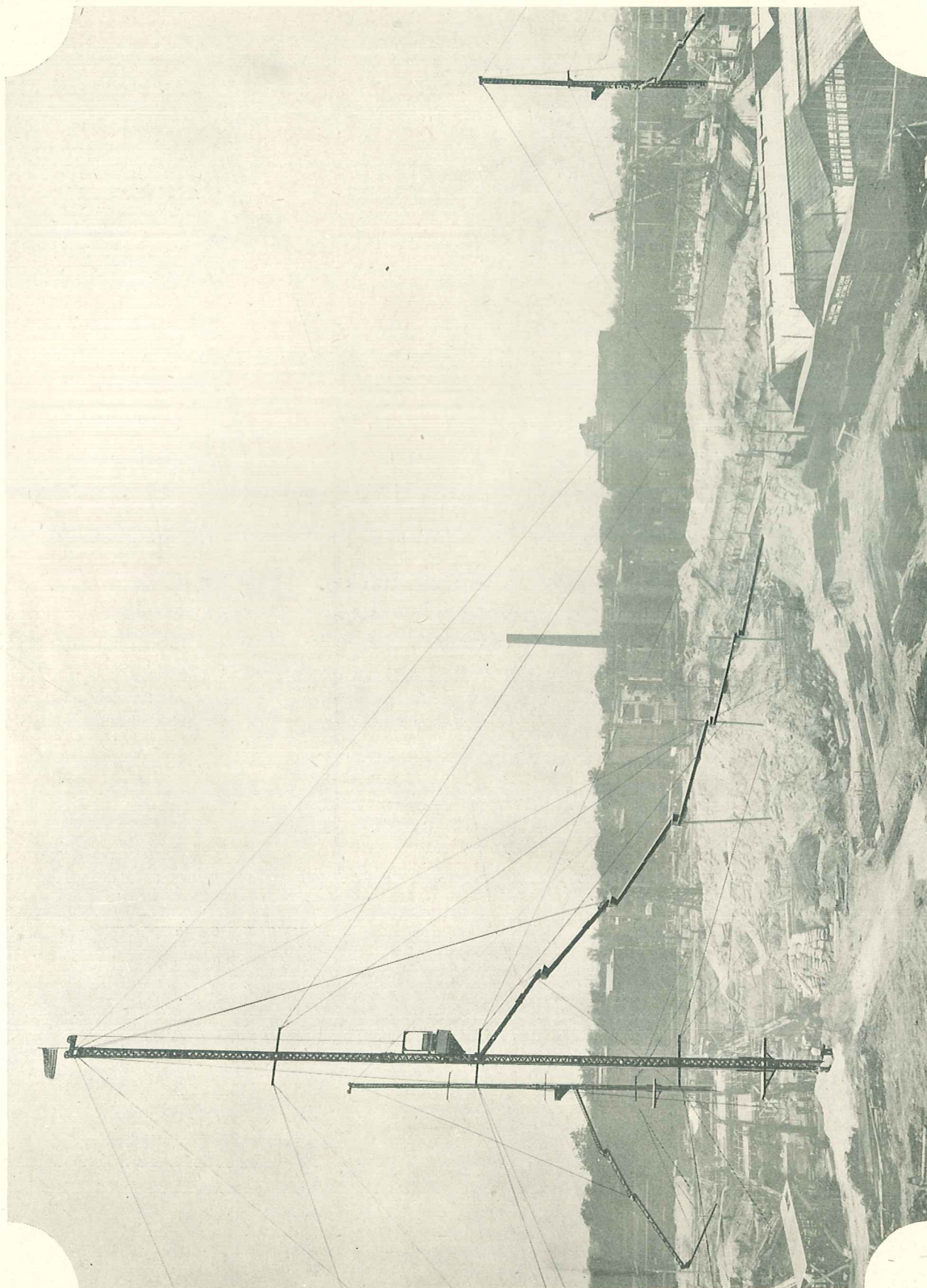






# THE ARCHER IRON WORKS

Illustrating three of the Archer Steel Tower Hoists used on the University of Chicago Medical Building, Chicago.



On the building illustrated, each tower has delivered approximately two hundred cubic yards per day.

On the building illustrated each tower is equipped with Archer Material Elevator.





## Archer Steel Tower Hoists

**S**PECIAL equipment, unusual methods and rapid pouring of concrete are features of the concrete plant used on the Memorial Hospital and Medical Hall at the University of Chicago. Three steel masts with long spouting systems which required no high-line supporting cables served the entire area. Both buildings are six stories high, with floors of the beam and joist type (having steel pan forms).

### THERE ARE TWO BUILDINGS ON THIS JOB

One 266 ft. long and 45 ft. wide  
One 299 ft. wide and 363 ft. long, with two belfry towers 165 ft. high.

### AMOUNT OF CONCRETE

31,000 cubic yards, approx.

### FOUNDATIONS

are on piling, and all concrete, including walls and floors, was poured from towers and spouting. From first floor up it is pan construction and concrete was poured directly into the pans without difficulty.

### NUMBER OF TOWER HOISTS

Three—Two being 160 ft. high  
One being 120 ft. high

### HOIST BUCKETS HOLD WHEN FULL

18.4 cubic feet of concrete each

### TOWER HOPPERS HOLD

1 cubic yard

### AMOUNT OF CONCRETE HOISTED AT ONE TIME

3 sack batch

### SPEED OF HOIST BUCKET

180 feet per minute

### LENGTH OF SPOUTING FROM EACH TOWER WITHOUT USE OF HIGH LINES OR COUNTERWEIGHTS

150 to 300 feet

### MATERIAL ELEVATOR

Operates independently of the concrete bucket and with a double drum hoist  
both can be operated at the same time

### CAPACITY OF ELEVATOR

Three wheelbarrows, and will easily lift a load of 2,000 pounds

The system was very flexible in operation, no difficulty being experienced in shifting the spouting from one location to another.

Archer tilting buckets were used on the Tower Hoists and their performance is not only very speedy but clean—no objectionable spilling being experienced.

The entire installation was a pronounced success.

We solicit your inquiries and our engineering department will give you, without cost, expert advice on your tower equipment.





# THE ARCHER IRON WORKS

The Experience of These Users Will Help You  
Select Your Tower Hoist



## FACTORY BUILDING

E. J. Brach & Sons, Confectionery Mfrs.

General Contractor—E. W. Sproul Co., Chicago, Ill.

Spouting was suspended from a highline and approximately 4,000 yards of concrete were poured on this job from a tower 80 ft. high. Material elevator used for erection as well as hoisting all materials necessary.

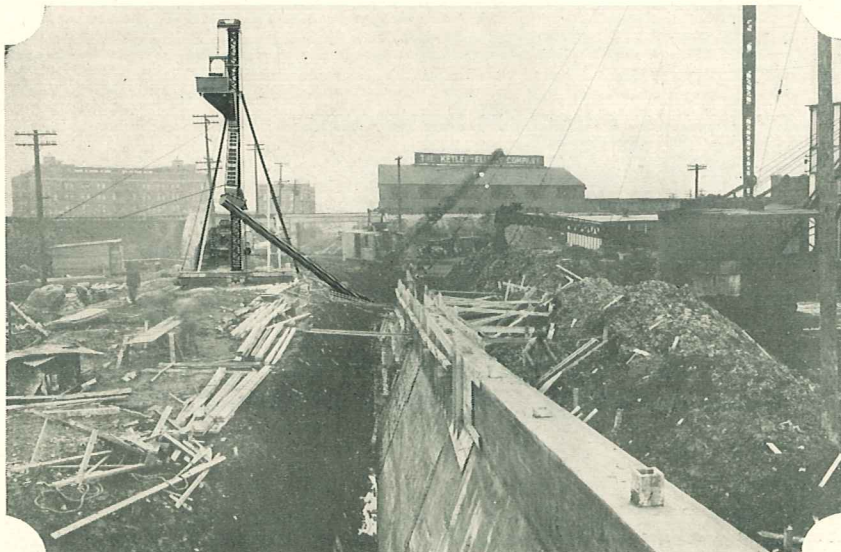


## COE TERMINAL WAREHOUSE

Detroit, Mich.

Walbridge Aldinger Co., General Contractors

Building 405 feet by 125 feet, six stories high and basement, of reinforced concrete, flat slab design. Total yardage of concrete, 19,000 cubic yards. Three-quarter yard bucket and material elevator used. The job is being handled successfully with one Archer Steel Tower, 240 ft. high.



## APPROACH TO THE NEW SACRAMENTO BRIDGE

Chicago, Ill.

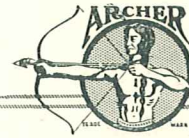
General Contractor—L. B. Fugitt, Chicago

Illustrating a 40 ft. Archer Steel Tower Hoist on a movable platform pouring concrete for the retaining walls.

**R**APIDITY and ease in  
handling concrete with  
the Archer Steel Tower  
Hoist will be very evident.



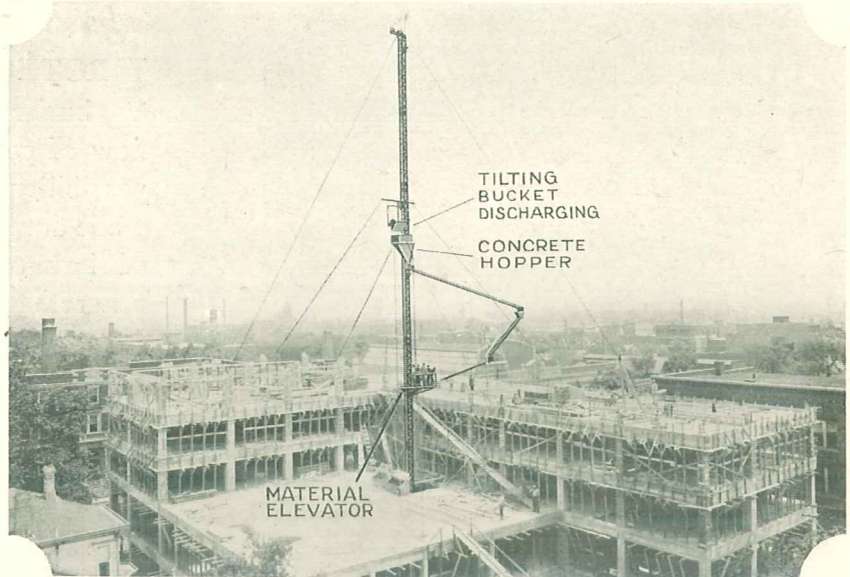
# THE ARCHER IRON WORKS



Building located at Morgan and Monroe Sts., Chicago.

General Contractor—A. L. Spietz, Chicago, Ill.

Illustrating an 80 ft. Archer Steel Tower and material elevator. Illustrating one of the many methods of spouting concrete to a floor hopper from which concrete is buggied to different parts of the building.



HOTEL WOLFORD

Danville, Ill.

General Contractor—Yeager & Sons, Danville, Ill.

This project is nine stories high and approximately 5,000 yards of concrete will be poured from the Tower Hoist. Material elevator is used and the tower is 160 ft. high.

ARCHER Steel Tower Hoists are adapted for all building purposes. Our engineers will lay out your spouting plant without cost.



ST. LEO'S HIGH SCHOOL

901 W. 79th St., Chicago, Ill.

General Contractor—Ames Construction Co., Chicago, Ill.

All concrete covering this large school is being poured with a 100 ft. tower and the material elevator is used for all hoisting purposes.

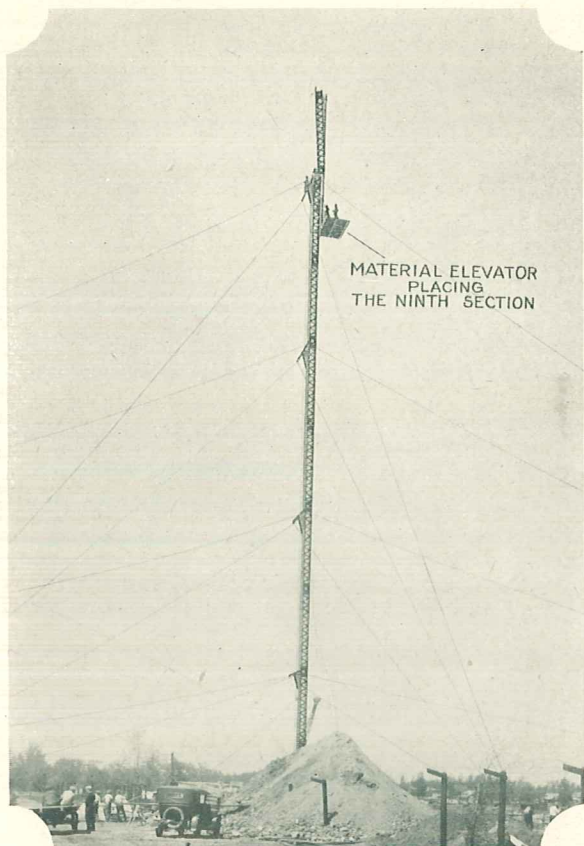


Illustration indicates the method of guying from Cross Arms, position of Bucket, Hopper and Material Elevator, with 150 feet of Spouting. This Tower is 160 ft. high and is one of the three used on the University of Chicago Medical Building.





# THE ARCHER IRON WORKS



**NORTHWESTERN UNIVERSITY STADIUM**  
Evanston, Ill.

General Contractor—J. B. French Co., Chicago, Ill.

Illustrating one of the 200 ft. towers. Another 180 ft. tower was used on this project..

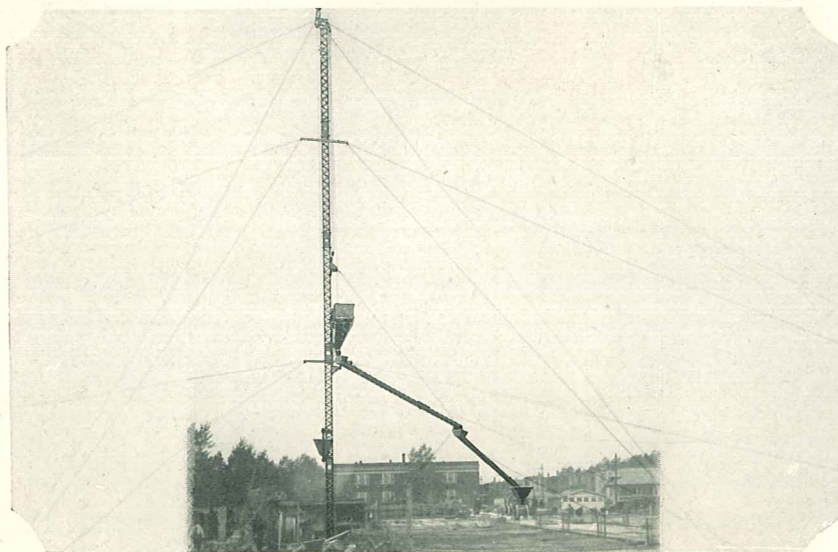
Note: Material Elevator was an important factor in the erection.



**MOODY MEMORIAL CHURCH AND SUNDAY SCHOOL**

General Contractor—J. H. Johnson,  
Chicago, Ill.

All concrete poured in horseshoe shape, balcony having side approach and block landing which was poured monolith. Two 80 ft. towers were used.



**DONALD L. MORRILL SCHOOL**

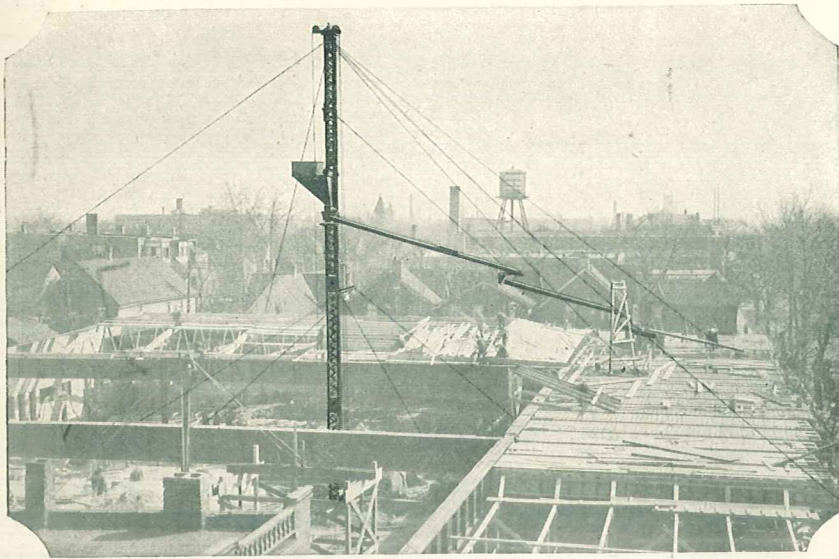
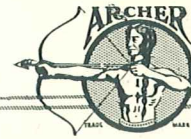
General Contractor—S. N. Nielsen Co., Chicago, Ill.

This building was 90 ft. wide by 360 ft. long. Approximately 4,000 cubic yards of concrete were poured from the 100 ft. tower as illustrated.

THE whole system of Archer Tower Hoists is such as to distribute the most concrete in a given time, and to do it day after day.



# THE ARCHER IRON WORKS



## GARAGE

Ravenswood and Leland Aves., Chicago, Ill.

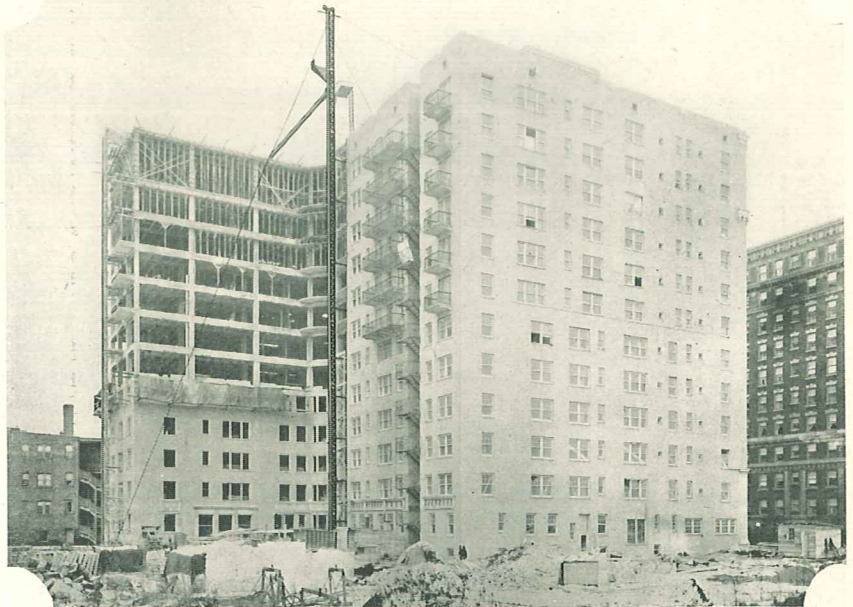
General Contractor—Mason & Carpenter, E.  
C. Ecker & Associates, Chicago, Ill.

All spouting and placing of concrete was accomplished with the use of an 80 foot tower hoist.

## PALMER HOUSE LAUNDRY

General Contractor—The Austin Co.,  
Chicago, Ill.

All concrete for footings, foundation, floors, etc., was poured from a tower 120 ft. high. All material was raised with our elevator.

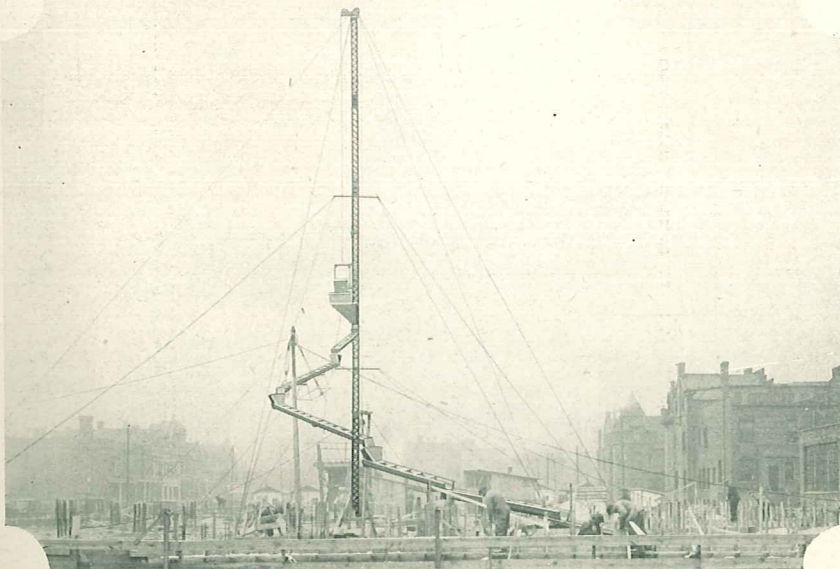


## PARK SHORE APARTMENT HOTEL

55th and the Lake, Chicago, Ill.

General Contractor—John A. Lundstrum Co.,  
Chicago, Ill.

This tower was 180 ft. high and was supported by means of steel cross arms bolted to the tower and fastened to the concrete members of the building. Material elevator was used for hoisting all materials.







# THE ARCHER IRON WORKS

## Hoist Tower Equipment

Used in connection with a wooden tower which the contractor builds in accordance with the general dimensions and specifications on page 17.

### Each Tower Outfit Includes

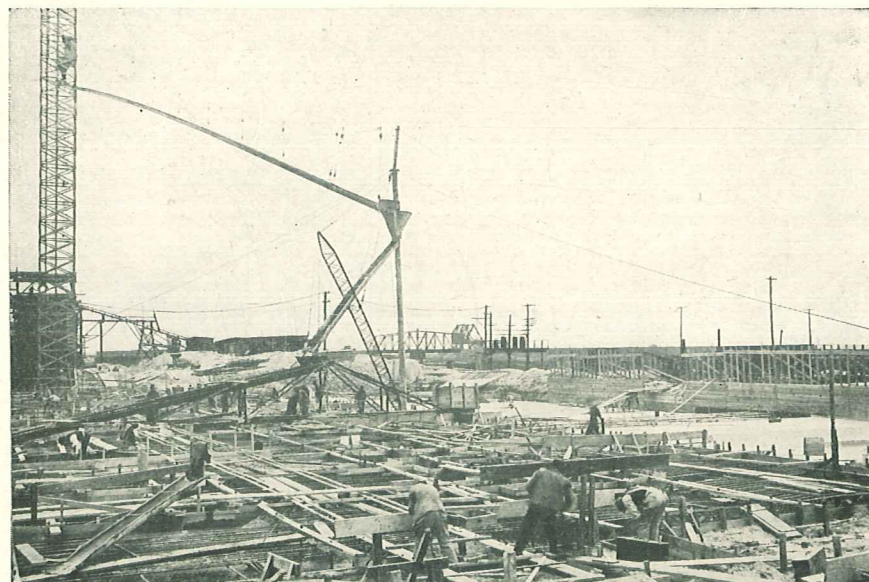
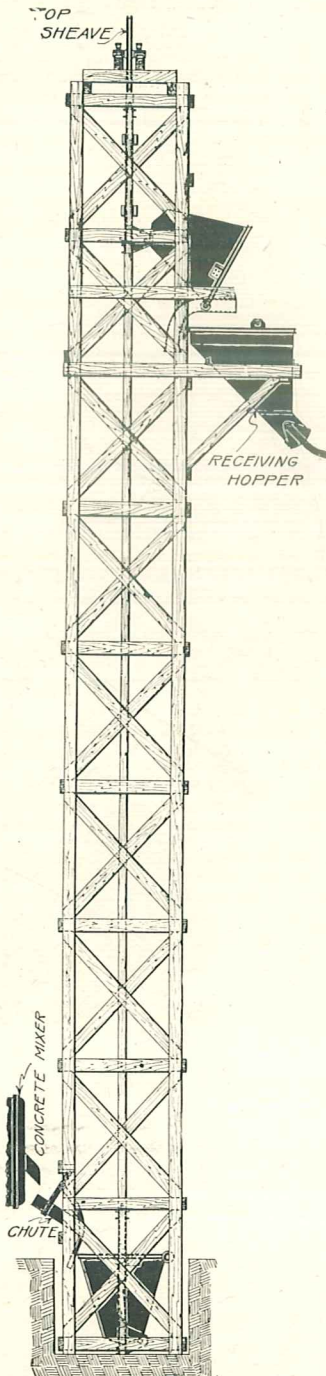
Two Top Sheave Wheels and Boxes. One Bucket and Bail complete. One Receiving Hopper fitted with Bucket dumping guides. One balanced Swing Chute and boxes for fastening. One Bottom swivel Sheave Wheel.

### Built in Five Standard Sizes

- |          |                             |                              |                             |
|----------|-----------------------------|------------------------------|-----------------------------|
| No. 107. | $\frac{1}{4}$ yard capacity | No. 114.                     | $\frac{1}{2}$ yard capacity |
| No. 121. | $\frac{3}{4}$ yard capacity | No. 128.                     | 1 yard capacity             |
| No. 135. |                             | $1\frac{1}{4}$ yard capacity |                             |

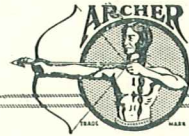
### General Information

No.	Capacity Cu. Ft.	BUCKET Weight, Lbs.		H. P. at 100 Ft. per Min.	Cable	Sheaves	Use with Hopper No.	Receiving Hopper		Weight Outfit Complete
		Empty	Full					Capacity Cu. Ft.	Weight Empty	
107	7	410	1460	8	$\frac{3}{8}$ "	14"	214	14	285	1010
114	14	675	2775	12	$\frac{1}{2}$ "	18"	228	28	485	1730
121	21	700	3850	16	$\frac{5}{8}$ "	18"	242	42	640	1950
128	28	830	5030	20	$\frac{5}{8}$ "	18"	256	56	830	2290
135	35	980	6230	24	$\frac{3}{4}$ "	18"	270	70	1120	2540



Showing use of Continuous Line Spouting in connection with Mast Hopper and Derrick on Grain Elevator





## Wood Tower Construction

The detail drawing on this page illustrates the construction of a typical tower with boom chute equipment. This type of equipment is mounted on a sliding frame and does not require any boom for raising or lowering the chute. A 2x4, which is secured to the faces of the tower corner posts, provides a smooth surface for the sliding frame.

The advantages of this type of equipment can be seen at a glance by referring to a typical layout shown on page No. 21.

### The Tower Pit

If the tower is placed in a pit, see dimension G for depth. If the tower is put on the ground, the mixer should be blocked up to suit.

### Corner Posts M

With No. 107 outfit use 4x4 inch corner posts for any height tower. For all other outfits use 4x6 inch posts on towers 50 feet high or less and 6x6 inch posts on towers over 50 feet high.

### Cross Sills N

Use 2x6 inch lumber for cross sills which are located inside at the sides of the tower, and outside at the front and rear. Sills are to be spaced about 4 or 5 feet apart.

### Lattice Bars O

Lattice bars must be placed outside of the tower at front and back, but can be placed inside or outside at the sides. Can be made of 1x6 or 2x6 inch lumber depending upon the height of the tower.

### Bucket Guides R

Guides need not be surfaced as the bucket sliding up and down the tower soon wears them smooth. The guides should be well greased before operating bucket. Dimension A is important.

### Tower Receiving Hopper

The hopper is secured to the hopper bracket with lag screws or bolts and the throw-out guides bolted in place on hopper. Dimension F is important.

### Bottom Swing Chute Q

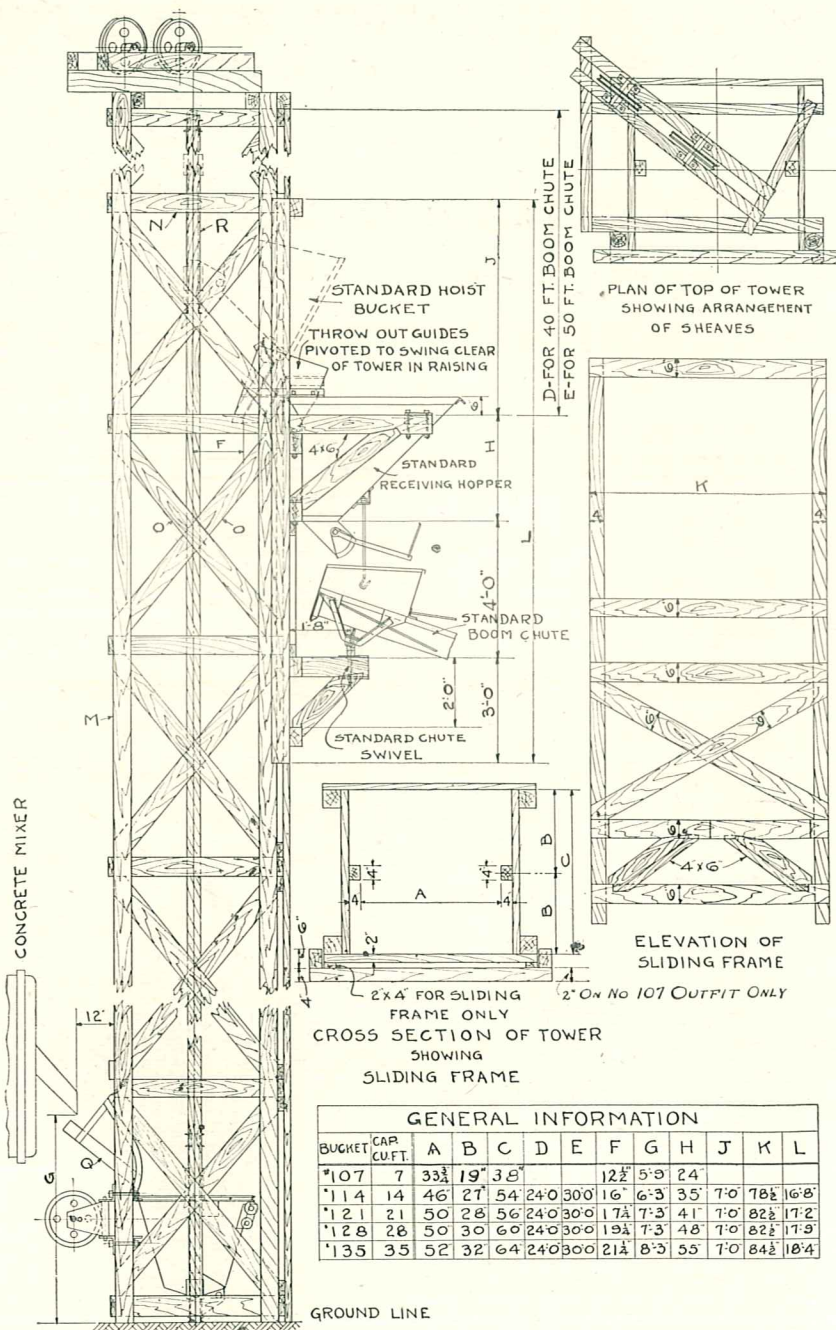
Set the bottom swing chute so that the hanger brackets will be about 3½ feet above the top edge of the rim of the bucket.

### Guys

Securely guy the tower particularly at the top and also near the bucket dumping position. Additional guys should be placed every 40 feet.

### Method of Operation

For spouting short distances a drop of one foot in three will not be excessive. For spouting long distances the pitch can be decreased but care should be taken to keep the chutes on an even pitch. When raising or lowering the sliding frame, unbolt the throw-out guides and swing them into the hopper.

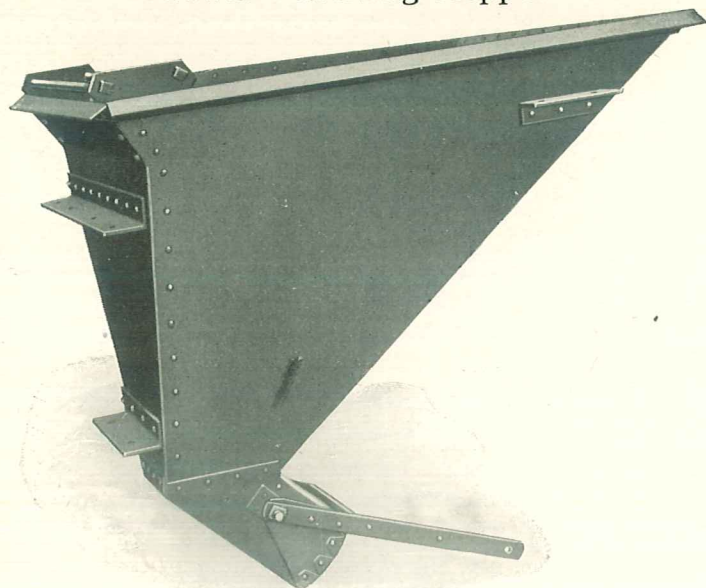






# THE ARCHER IRON WORKS

## Tower Receiving Hopper



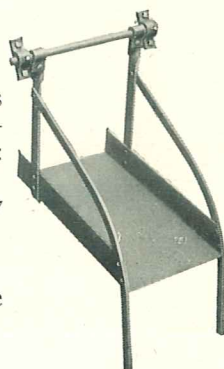
List No.	Capacity Cubic Feet	Weight Pounds	Use With Bucket Number
214	14	285	107
228	28	485	114
242	42	640	121
256	56	830	128
270	70	1120	135

## Swing Chute

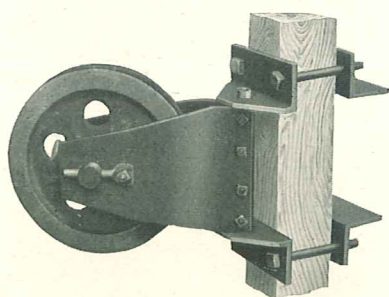
Furnished with boxes and lag screws complete ready for installing on wooden Hoist Tower. Built in two sizes:

No. 316. 16" wide for Number 107 Outfit.

No. 322. 22" wide for all other size Outfits.



## Swivel Bottom Sheave

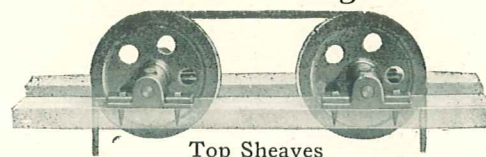


14-inch sheave used on Number 107 Tower outfit and 18" Sheave used on all other sizes.

B14. 14" Bottom Sheave Complete.

B18. 18" Bottom Sheave Complete.

## Tower Fittings



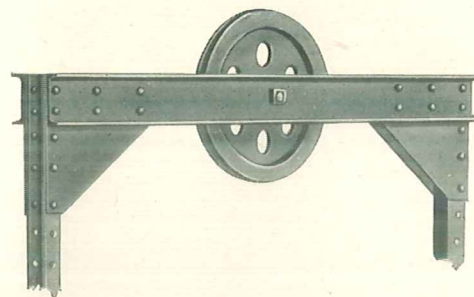
Top Sheaves

Two 14" sheaves and boxes with lag screws furnished on Tower Outfit No. 107. 18" sheaves used on all other outfits.

T14. 14" Top Sheave Set Complete.

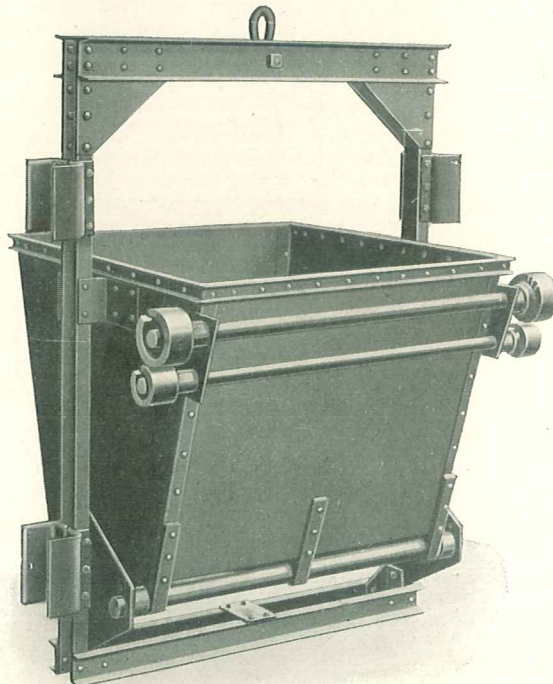
T18. 18" Top Sheave Set Complete.

## S-14 Sheave in Bucket



Bucket is equipped with 14" sheave when it is desired to hoist bucket at half speed with one-half power.

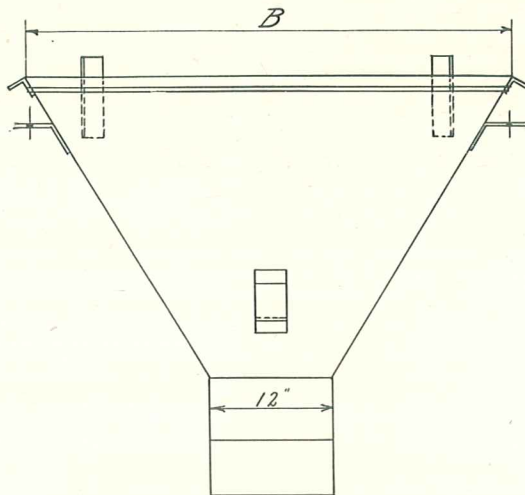
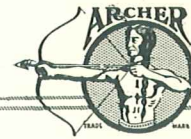
## Hoist Tower Bucket



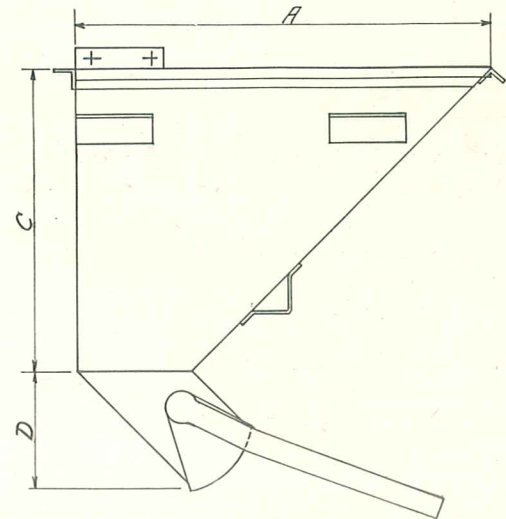
List No.	Capacity Cubic Feet	Weight Lbs.	Wire Rope Required Inches	Horse Power at 100 Ft. per Minute	Use with Hopper Number
107	7	410	$\frac{3}{8}$	8	214
114	14	675	$\frac{1}{2}$	12	228
121	21	700	$\frac{5}{8}$	16	242
128	28	830	$\frac{5}{8}$	20	256
135	35	980	$\frac{3}{4}$	24	270



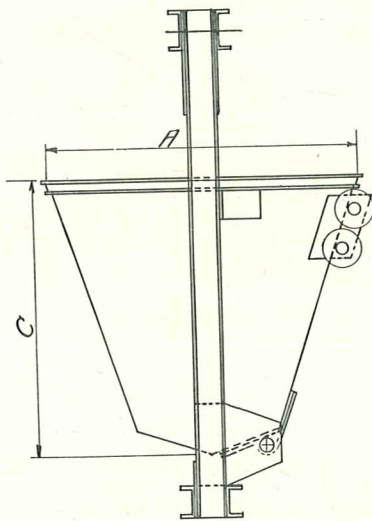
# THE ARCHER IRON WORKS



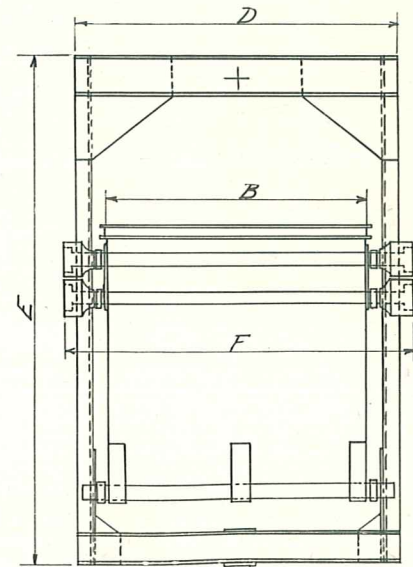
Receiving  
Hopper



Outfit Number	107	114	121	128	135
Hopper Number	214	228	242	256	270
Capacity in Cu. Ft.	14	28	42	56	70
A	3' 5 1/2"	4' 8"	5' 2"	5' 5 1/2"	6' 4"
B	4' 0"	5' 0"	5' 6"	6' 0"	6' 0"
C	2' 6"	3' 5"	3' 11"	4' 6"	5' 1"
D	1' 0"	1' 0"	1' 0"	1' 0"	1' 0"



Standard Hoist Bucket



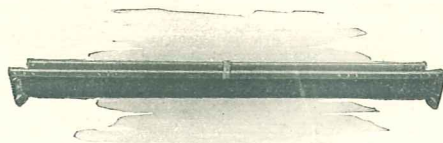
Outfit Number	107	114	121	128	135
Actual Bucket Capacity in Cu. Ft.	8.5	18.6	24.8	30.7	40
A	2' 7"	3' 1 1/2"	3' 4"	3' 8"	4' 0"
B	2' 2"	3' 0"	3' 4"	3' 4"	3' 6"
C	2' 4"	2' 9 1/2"	3' 2"	3' 8"	4' 3"
D	2' 8 1/4"	3' 8 1/2"	4' 0 1/2"	4' 0 1/2"	4' 2 1/2"
E	4' 5"	5' 4"	5' 10"	6' 4"	7' 0"
F	2' 11"	3' 11 1/2"	4' 3 1/2"	4' 3 1/2"	4' 5 1/2"





# THE ARCHER IRON WORKS

## Concrete Spouting



Standard 10 Foot Section. No. 10

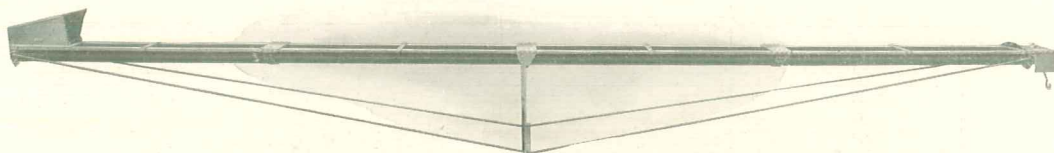


Standard 20 Foot Section. No. 20

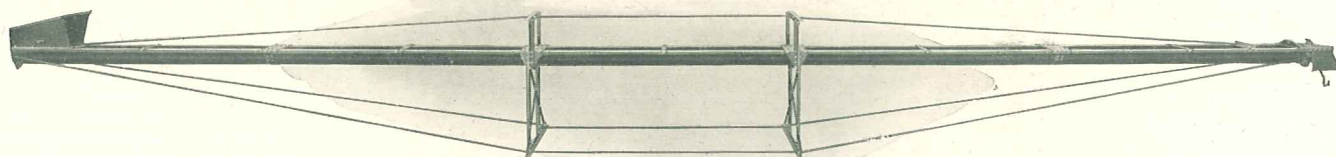
Our spouting is composed of a number of standard units all carefully punched to accurate template. By bolting together the different units any combination can be constructed. This permits the contractor to adapt our equipment to any number of different conditions and also to include additional equipment or replace only the worn parts of the used equipment, thereby operating with the utmost economy. New spouting can be readily bolted into used parts which more than doubles the life of the balance of the equipment.



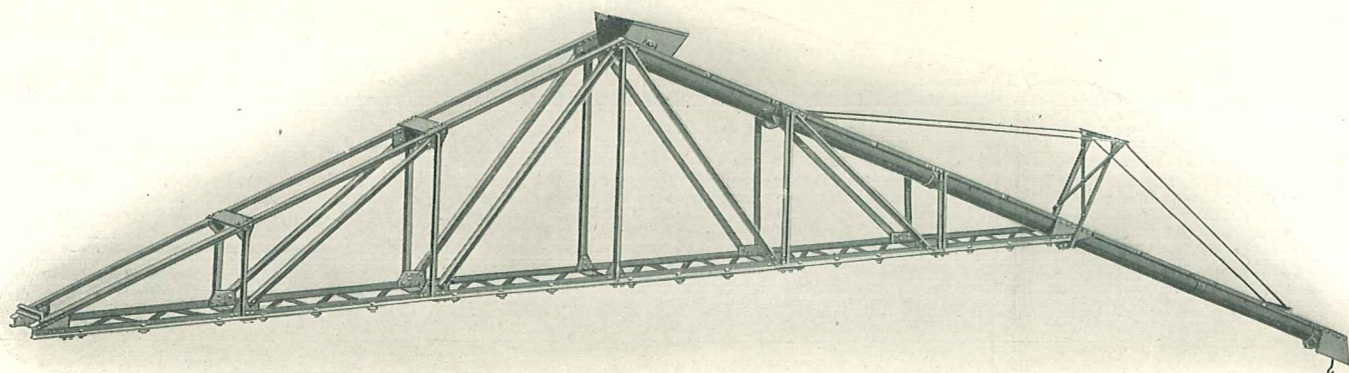
Standard 30 Foot Spout Number 30HS



Standard 40 Foot Spout Number 40HS



Standard 50 Foot Spout Number 50HS

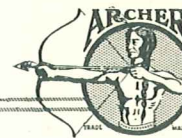


Counterweight Spout  
No. C40HS      No. C50HS

Counterweight spouts are made in 40 and 50 foot lengths and have sufficient strength to carry any standard trussed section at its lower end. Counterweight spouts can be constructed with our standard spouting by adding our counterweight frame.

Interchangeability is the Essential Feature of Our Design





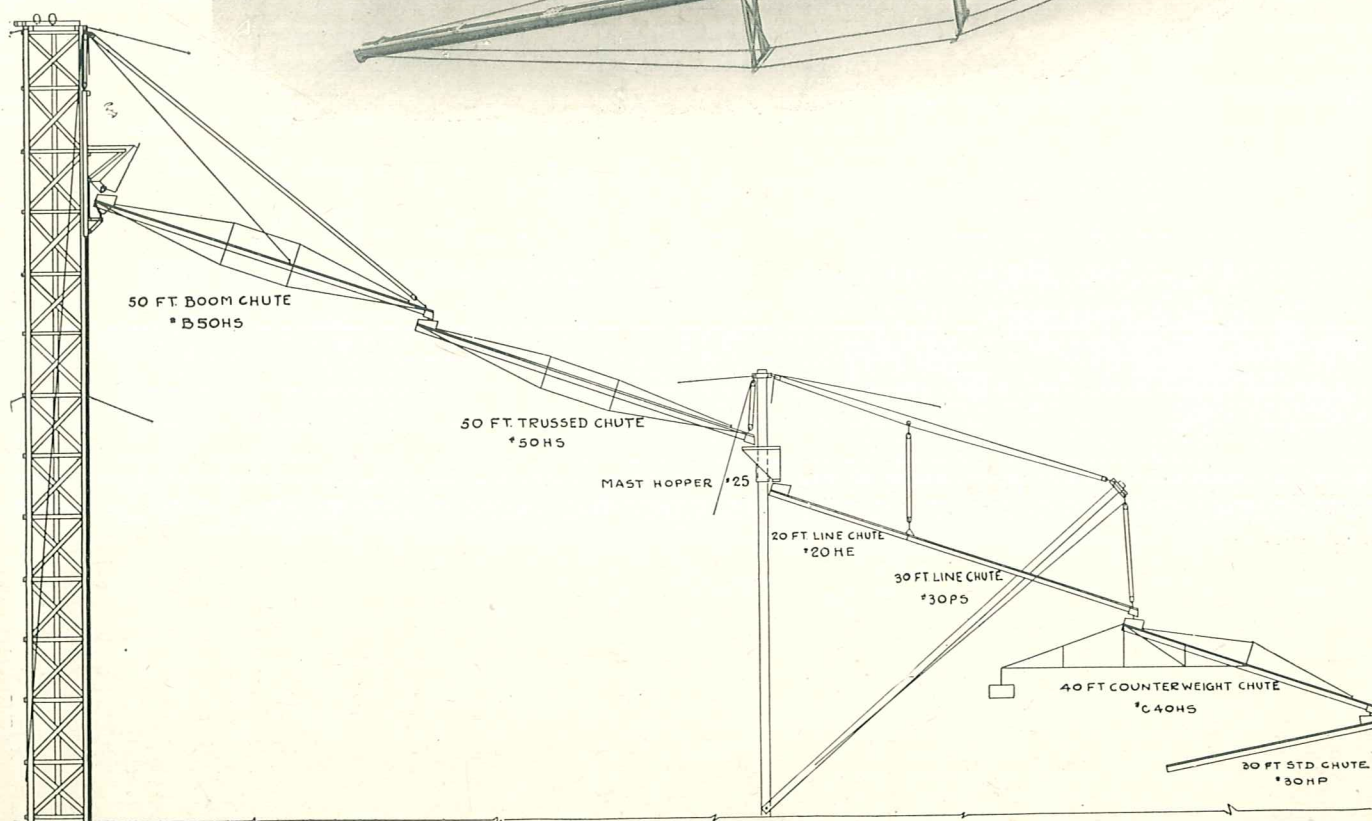
## Boom Spout Plant

Has a sliding frame on Tower which is quickly raised as the building progresses. Boom spout is rigidly braced and capable of suspending a truss spout of equivalent length at the discharge end, eliminating the necessity of using the open boom.

First section of boom spout made in 40 or 50 foot length.

Number B40HS

Number B50HS



A Typical Spouting Plant



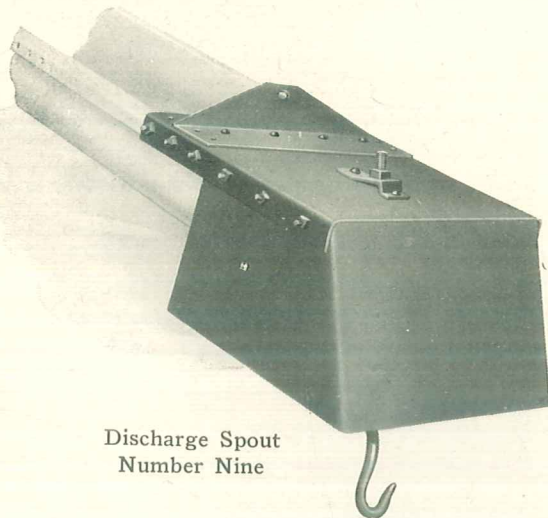


# THE ARCHER IRON WORKS

## Concrete Spouting

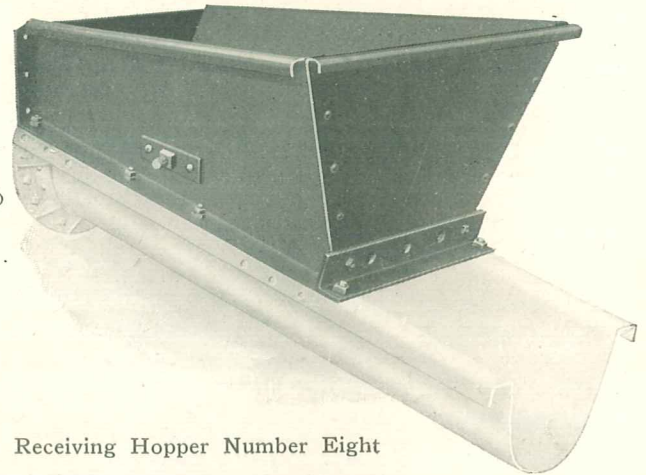
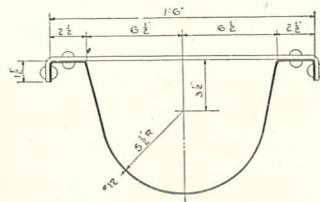
Our concrete spouting is of heavy gauge steel plate and formed to a section which assures maximum strength and greatest flow of concrete.

Note that both hopper and spout are bolted to standard sections.

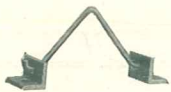


Discharge Spout  
Number Nine

### Cross Section



Receiving Hopper Number Eight



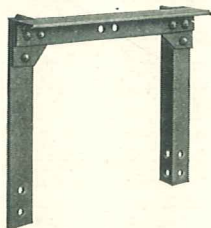
Bail No. 6



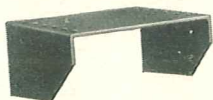
Connecting Plate No. 3



Truss Rod End Clip No. 17



Top Truss No. 12

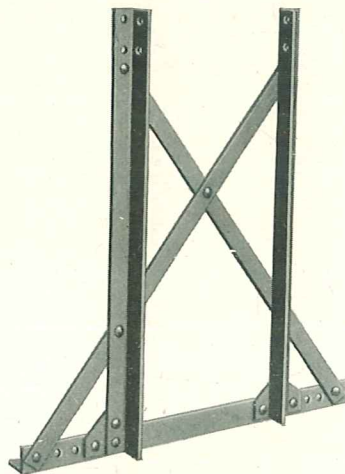


Connecting Plate No. 16



Connecting Plate No. 19

### Parts for Constructing Trussed and Boom Spouting.



Bottom Truss No. 11

### Truss Rods



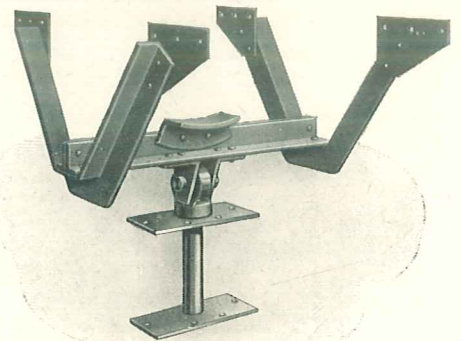
No. 15 Truss Rod  
18'-1 1/2"



No. 14 Truss Rod  
10'-4"



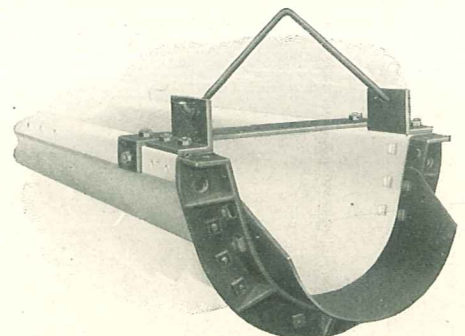
No. 13 Truss Rod  
20'-8"



### No. 18 Boom Spout Bridle

For connecting boom spout to sliding frame on wooden Tower. Every length of our standard spouting is punched for bolting on this bridle allowing any spout to be immediately converted into a boom spout on the job.

### Line Chute Joint

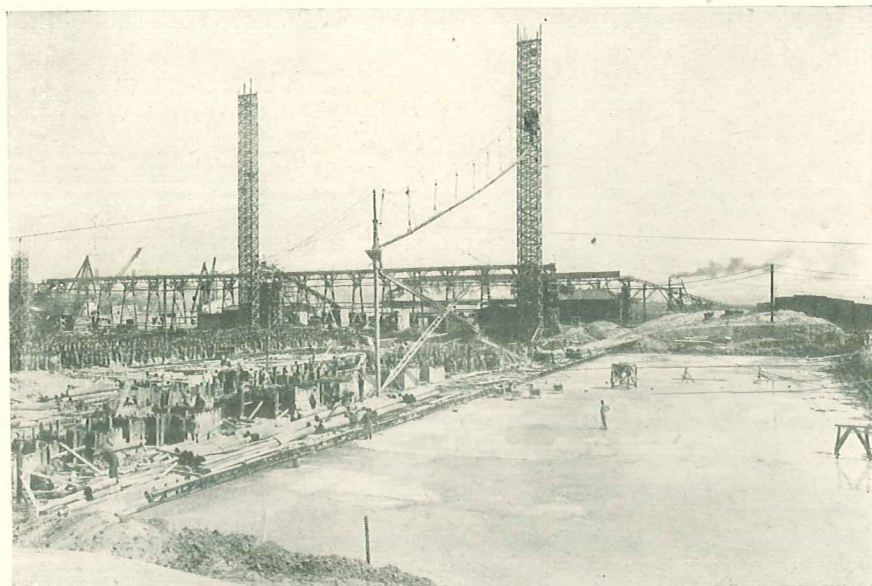


Number Six Bail and Number Seven  
Expansion Plate





## Derrick Chute Plant

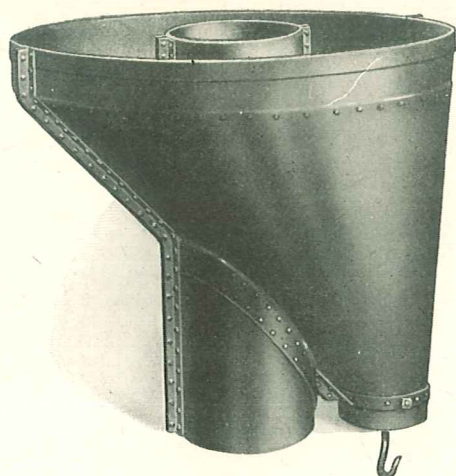


## Flexible Spouting



Number 26

Flexible spouting is used for conveying concrete from discharge end of main line or from line gate. Particularly adapted for sewer, tunnel or conduit work. Made of 14 gauge steel in 3 foot lengths, 10 inches in diameter tapered.

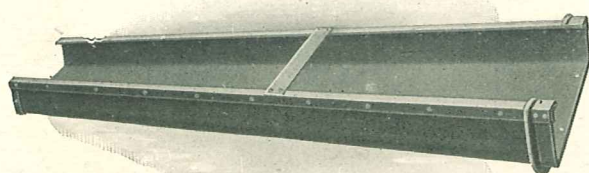


Number 27

## No. 27 Mast Hopper

Designed for use on a  
Standard Guy Derrick

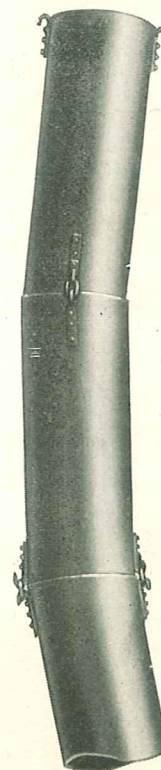
Spouting equipment used  
on jobs of big area, poured  
from a central mixing  
plant.



Number 1501—10 Ft.

## No. 1501 Tapered Chutes

Tapered chutes resting on  
wooden horses are quickly  
moved and their use elim-  
inates necessity of fre-  
quently shifting the main  
line. Made in 10 foot  
lengths.

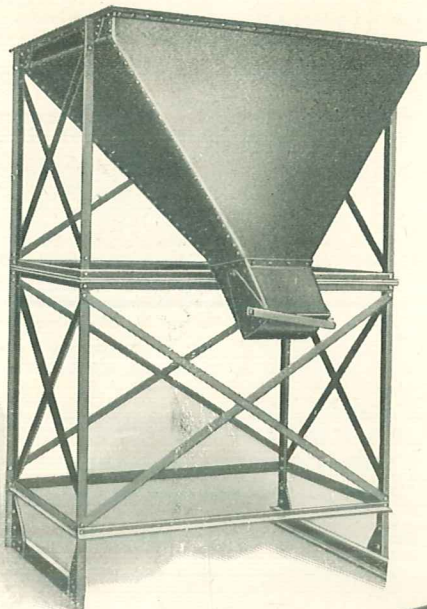


Number 25





# THE ARCHER IRON WORKS



## Single Floor Hopper

Steel frame work is shipped knocked down and is bolted up on the job.

### Capacities

No. 1214. 14 cubic feet.

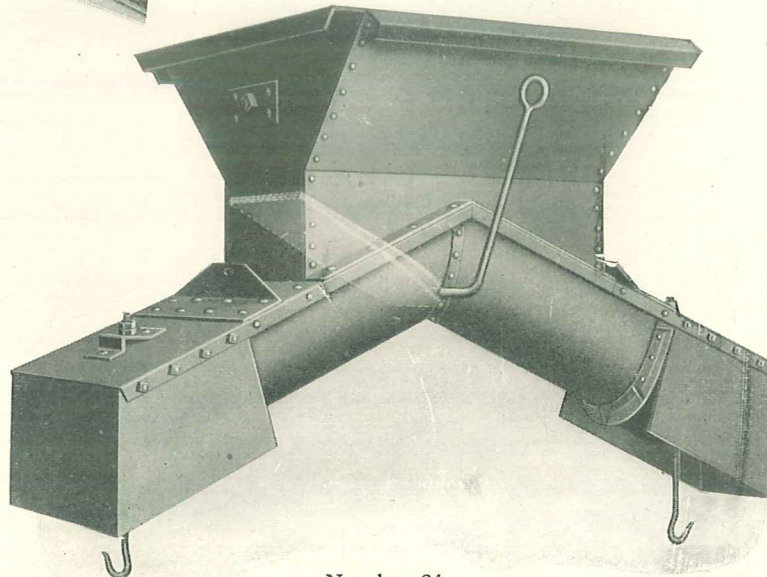
No. 1242. 42 cubic feet.

No. 1228. 28 cubic feet.

No. 1256. 56 cubic feet.

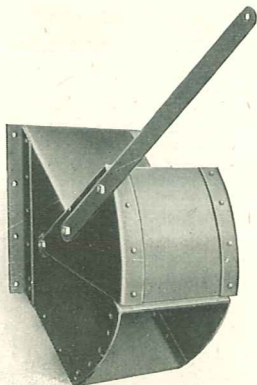
No. 1270. 70 cubic feet.

## Two-Way Hopper



Number 24

Used under the Tower Hopper for controlling the flow of concrete into two lines of spouting.

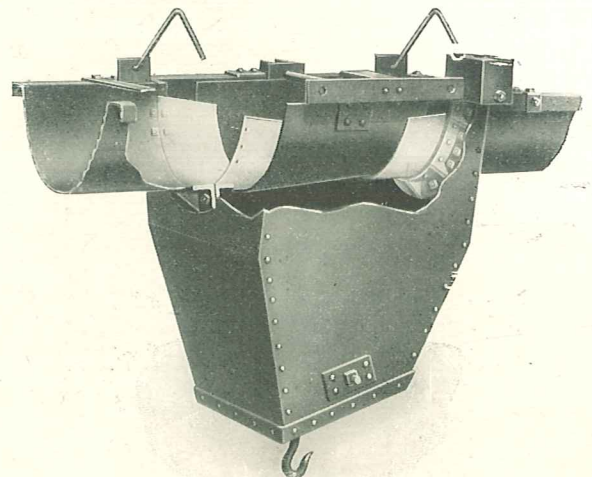


Number 665

Bin Gate No. 665 suitable for handling concrete, crushed stone, sand and gravel. Size of opening 12"x17".

## No. 23 Line Gate

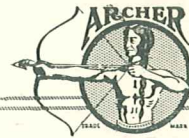
Used to run an auxiliary line of spouting off of a continuous line. Can be inserted between any two standard sections.



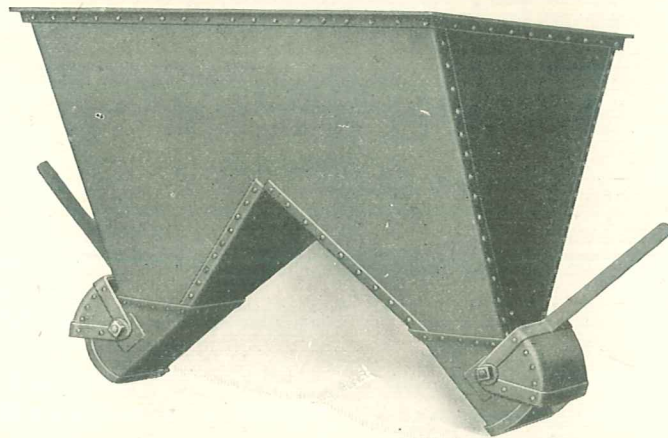
Number 23



# THE ARCHER IRON WORKS



## Double Floor Hopper

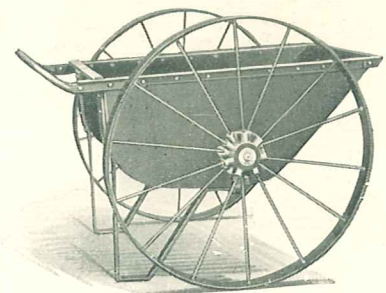


Supported by wooden frame erected by contractor. Built in two and four yard capacities.

F54. Two Yard Hopper

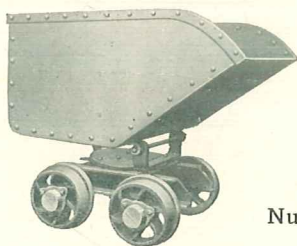
F108. Four Yard Hopper

## Concrete Cart

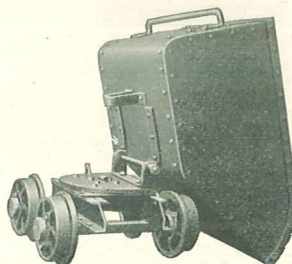


No. 577. Concrete Cart has 42 inch diameter wheels, tires  $1\frac{3}{4}$  inches, axles  $1\frac{1}{4}$  inches, capacity 6 cubic feet wet material.

## Scoop Car



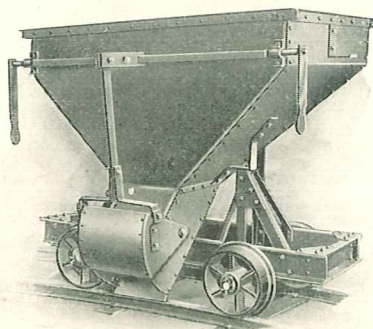
Number 420



No. 420. Scoop Car is built with Turntable which allows car to be dumped from any position.

List Number	Capacity Cu. Ft.	Track Gauge Inches	Diameter Wheels Inches	Sizes Over All			Weight Pounds
				Length Inches	Width Inches	Height Inches	
420-A	12	24	10	48	31	42	625
420-B	18	24	12	53	32	43	775
420-C	21	24	12	59	32	48	850

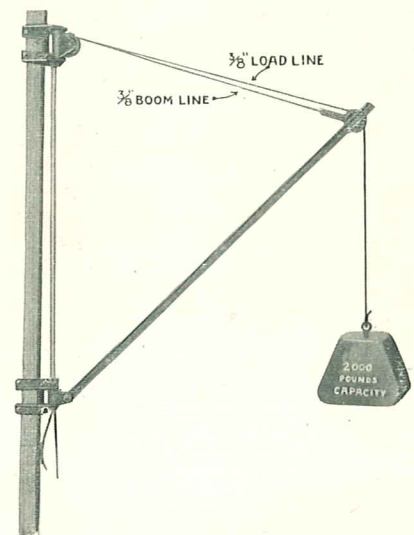
## Concrete Car



Number 455

List Number	Capacity Yard	Gauge Inches	Weight Pounds	Sizes Over All			Material Number	Wheels Inches Size
				Length Inches	Width Inches	Height Inches		
455-B	$\frac{3}{4}$	24	950	60	49	54	10 steel	12
455-C	1	24	1200	72	55	54	10 steel	12
455-E	$1\frac{1}{2}$	24	1600	85	60	56	$\frac{3}{16}$ in. steel	14

## Portable Boom Derrick



Portable Boom Derrick is made to clamp to corner post of tower but can be clamped to any other posts about the building. Boom will swing three-quarters of a circle.

Length Boom	Lifting Capacity	Diameter Sheaves	Shipping Weight
13	2000 lbs.	8 in.	285 lbs.
20	2000 lbs.	8 in.	395 lbs.



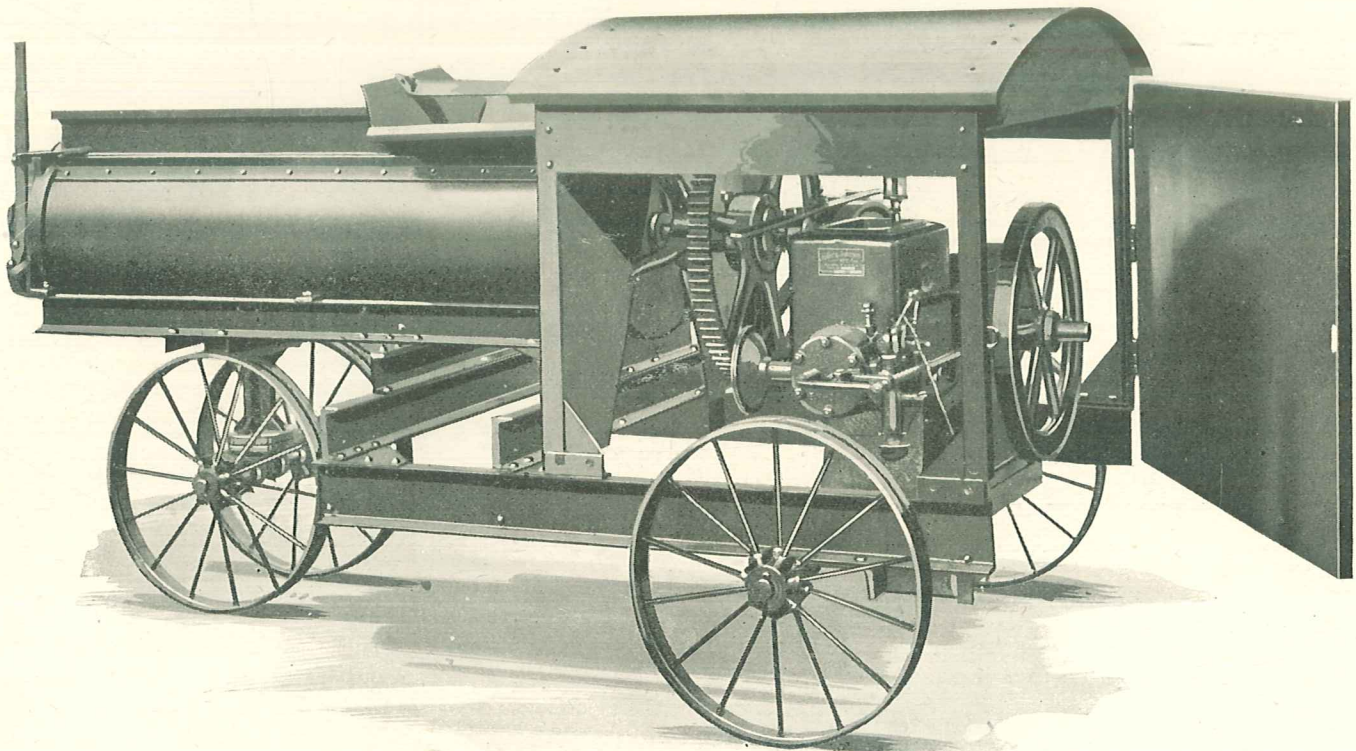


# THE ARCHER IRON WORKS

## A Necessity for Every Contractor Having Five or More Masons

### MIXING ACTION

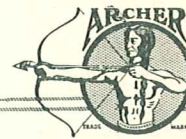
MIXING with the Archer Mortar Mixer is done in a cylindrical drum 20 inches in diameter by 6 feet long. The mortar is discharged directly into wheelbarrows through the mortar discharge door, which can be opened or closed at will. No shoveling. A push of the lever gives you a wheelbarrow full of mortar. Heavy removable mixing paddles and blades are attached to a 2 inch square shaft driven through machine cut gears. The Archer is sturdily constructed and will give many years of hard service.



Number M. M.

Equipped with Gasoline or Electric Motor of sufficient size to furnish surplus power. Bearings of ample size and protected by adjustable stuffing boxes, thereby preventing the mortar working into them. A large ball thrust bearing enclosed and running in grease makes the Archer Mortar Mixer easy running and prevents end wear.





## The Archer Mortar Mixer Speeds Output

*Takes the "Guess Work"  
Out of Mortar  
Mixing*

### The Day

of profitable hand mixing is past. A Mortar Mixer is indispensable for the small as well as the large contractor. The Archer is the one Mortar Mixer that can be economically operated on the small and large job alike.

An Archer Mortar Mixer insures uniform mixed mortar—speeds up the work of your masons—increases their output and adds to your profit on every job.

### Keeps Fifty Masons Hustling

The Archer Mortar Mixer will keep as many as fifty masons hustling. It enables each mason to easily lay 10 per cent more bricks. And that is only one way the Archer will save you money, for it assures you of uniform mixed mortar. No time lost by the masons. Today the Archer mixes the mortar, the man on the wall lays the brick.

### Delivers Uniform Mixed Mortar

One man with the Archer Mortar Mixer can mix as much mortar as five men formerly mixed by hand. Besides this you can get quality mortar. Mortar that is just right. Mortar that the masons like. Put an Archer on the job and watch your masons hustle.

*Used By Leading Contractors*



MIXING SHAFT

Showing arrangement of Removable Blades. This Shaft Revolves in Center of Drum Driving the Mortar Toward Discharge Door.



## *Guarantee*

**E**ACH and every piece of apparatus sold has the guarantee of the ARCHER IRON WORKS, an old established company which has been in active business for more than thirty years. We wish it understood that whenever anything is not right we stand ready to make it right, for it is our aim to satisfy every customer.

We guarantee ARCHER EQUIPMENT to work and to perform all we claim for it under average care and conditions. We also guarantee the equipment against defects or inferior workmanship and agree to replace F. O. B. Chicago any defective part existing in same at time of delivery if claim, properly established, is made thereon within one year from date of delivery.

Archer Products Patented and Patents Pending

# Archer Iron Works

Established 1891

34th Place & Western Ave.

CHICAGO



